



ESSAYS  
ON  
SOME UNSETTLED QUESTIONS  
OF  
POLITICAL ECONOMY

LONDON : PRINTED BY  
SPOTTISWOODE AND CO., NEW-STREET SQUARE  
AND PARLIAMENT STREET

ESSAYS  
ON  
SOME UNSETTLED QUESTIONS  
OF  
POLITICAL ECONOMY

BY  
JOHN STUART MILL

THIRD EDITION

LONDON  
LONGMANS, GREEN, AND CO.  
1877





# PREFACE

## THE FIRST EDITION.

OF these Essays, which were written in 1829 and 1830, the fifth alone has been previously printed. The other four have hitherto remained in manuscript, because, during the temporary suspension of public interest in the species of discussion to which they belong, there was no inducement to their publication.

They are now published (with a few merely verbal alterations) under the impression that the controversies excited by Colonel Torrens' *Budget* have again called the attention of political economists to the discussions of the abstract science : and from the additional consideration, that the first paper relates expressly to the point upon which the question at issue between Colonel Torrens and his antagonists has principally turned.

From that paper it will be seen that opinions identical in principle with those promulgated by Colonel Torrens (there would probably be considerable difference as to the extent of their practical application) have been held by the writer for more than fifteen years : although he cannot claim to himself the

original conception, but only the elaboration, of the fundamental doctrine of the Essay.

A prejudice appears to exist in many quarters against the theory in question, on the supposition of its being opposed to one of the most valuable results of modern political philosophy, the doctrine of Freedom of Trade between nation and nation. The opinions now laid before the reader are presented as corollaries necessarily following from the principles upon which Free Trade itself rests. The writer has also been careful to point out, that from these opinions no justification can be derived for any *protecting* duty, or other preference given to domestic over foreign industry. But in regard to those duties on foreign commodities which do not operate as protection, but are maintained solely for revenue, and which do not touch either the necessities of life or the materials and instruments of production, it is his opinion that any relaxation of such duties, beyond what may be required by the interest of the revenue itself, should in general be made contingent upon the adoption of some corresponding degree of freedom of trade with this country, by the nation from which the commodities are imported.

# CONTENTS.

• •

## ESSAY I.

	PAGE
Of the Laws of Interchange between Nations ; and the Distribution of the Gains of Commerce among the Countries of the Commercial World . . . . .	1

## ESSAY II.

Of the Influence of Consumption upon Production . . . .	47
---	----

## ESSAY III.

On the Words Productive and Unproductive . . . . .	75
--	----

## ESSAY IV.

On Profits, and Interest . . . . .	90
------------------------------------	----

## ESSAY V.

On the Definition of Political Economy ; and on the Method of Investigation proper to it . . . . .	120
--	-----



## ESSAY I.

### OF THE LAWS OF INTERCHANGE BETWEEN NATIONS; AND THE DISTRIBUTION OF THE GAINS OF COM- MERCE AMONG THE COUNTRIES OF THE COMMERCIAL WORLD.

OF the truths with which political economy has been enriched by Mr. Ricardo, none has contributed more to give to that branch of knowledge the comparatively precise and scientific character which it at present bears, than the more accurate analysis which he performed of the nature of the advantage which nations derive from a mutual interchange of their productions. Previously to his time, the benefits of foreign trade were deemed, even by the most philosophical enquirers, to consist in affording a vent for surplus produce, or in enabling a portion of the national capital to replace itself with a profit. The futility of the theory implied in these and similar phrases, was an obvious consequence from the speculations of writers even anterior to Mr. Ricardo. But it was he who first, in the chapter on Foreign Trade, of his immortal *Principles of Political Economy and Taxation*, substituted for the former vague and unscientific, if not positively false, conceptions with regard to the advantage of trade, a philosophical exposition which explains, with strict precision, the nature of that advantage, and affords an accurate measure of its amount.

He showed, that the advantage of an interchange of commodities between nations consists simply and solely in this, that it enables each to obtain, with a given amount of labour and capital, a greater quantity

of all commodities taken together. This it accomplishes by enabling each, with a quantity of one commodity which has cost it so much labour and capital, to purchase a quantity of another commodity which, if produced at home, would have required labour and capital to a greater amount. To render the importation of an article more advantageous than its production, it is not necessary that the foreign country should be able to produce it with less labour and capital than ourselves. We may even have a positive advantage in its production: but, if we are so far favoured by circumstances as to have a still greater positive advantage in the production of some other article which is in demand in the foreign country, we may be able to obtain a greater return to our labour and capital by employing none of it in producing the article in which our advantage is least, but devoting it all to the production of that in which our advantage is greatest, and giving this to the foreign country in exchange for the other. It is not a difference in the *absolute* cost of production, which determines the interchange, but a difference in the *comparative* cost. It may be to our advantage to procure iron from Sweden in exchange for cottons, even although the mines of England as well as her manufactories should be more productive than those of Sweden; for if we have an advantage of one-half in cottons, and only an advantage of a quarter in iron, and could sell our cottons to Sweden at the price which Sweden must pay for them if she produced them herself, we should obtain our iron with an advantage of one-half, as well as our cottons. We may often, by trading with foreigners, obtain their commodities at a smaller expense of labour and capital than they cost to the foreigners themselves. The bargain is still advan-

tageous to the foreigner, because the commodity which he receives in exchange, though it has cost us less, would have cost him more. As often as a country possesses two commodities, one of which it can produce with less labour, comparatively to what it would cost in a foreign country, than the other ; so often it is the interest of the country to export the first mentioned commodity and to import the second ; even though it might be able to produce both the one and the other at a less expense of labour than the foreign country can produce them, but not less in the same degree ; or might be unable to produce either except at a greater expense, but not greater in the same degree.

On the contrary, if it produces both commodities with greater facility, or both with greater difficulty, and greater in exactly the same degree, there will be no motive to interchange.

“If the cloth and the corn, each of which required 100 days’ labour in Poland required each 150 days’ labour in England ; it would follow, that the cloth of 150 days’ labour in England, if sent to Poland, would be equal to the cloth of 100 days’ labour in Poland : if exchanged for corn, therefore, it would exchange for the corn of only 100 days’ labour. But the corn of 100 days’ labour in Poland, was supposed to be the same quantity with that of 150 days’ labour in England. With 150 days’ labour in cloth, therefore, England would only get as much corn in Poland as she could raise with 150 days’ labour at home ; and she would, in importing it, have the cost of carriage besides. In these circumstances no exchange would take place.

“If, on the other hand, while the cloth produced with 100 days’ labour in Poland was produced with 150 days’ labour in England, the corn which was



produced in Poland with 100 days' labour could not be produced in England with less than 200 days' labour ; an adequate motive to exchange would immediately arise. With a quantity of cloth which England produced with 150 days' labour, she would be able to purchase as much corn in Poland as was there produced with 100 days' labour ; but the quantity, which was there produced with 100 days' labour, would be as great as the quantity produced in England with 200 days' labour.

"The power of Poland would be reciprocal. With a quantity of corn which cost her 100 days' labour, equal to the quantity produced in England by 200 days' labour, she could in the supposed case purchase in England the produce of 200 days' labour in cloth." But "the produce of 150 days' labour in England in the article of cloth would be equal to the produce of 100 days' labour in Poland."\*

The remainder of what Mr. Ricardo has done for the philosophical exposition of the principles of foreign trade, is to show, that the truth of the propositions now recapitulated is not affected by the introduction of money as a medium of exchange ; the precious metals always tending to distribute themselves in such a manner throughout the commercial world, that every country shall import all that it would have imported, and export all that it would have exported, if exchanges had taken place, as in the example above supposed, by barter.

To this branch of the subject we shall, in the sequel of this essay, return. At present it will be more convenient that we should continue to suppose,

\* *Elements of Political Economy*, by James Mill, Esq., 3rd edit., pp. 120-1.

that exchanges take place by the direct trucking of one commodity against another.

It is established, that the advantages which two countries derive from trading with each other, results from the more advantageous employment which thence arises, of the labour and capital—for shortness let us say the labour—of both jointly. The circumstances are such, that if each country confines itself to the production of one commodity, there is a greater total return to the labour of both together; and this increase of produce forms the whole of what the two countries taken together gain by the trade.

It is the purpose of the present essay to inquire, in what proportion the increase of produce, arising from the saving of labour, is divided between the two countries.

This question was not entered into by Mr. Ricardo, whose attention was engrossed by far more important questions, and who, having a science to create, had not time, or room, to occupy himself with much more than the leading principles. When he had done enough to enable any one who came after him, and who took the necessary pains, to do all the rest, he was satisfied. He very rarely followed out the principles of the science into the ramifications of their consequences. But we believe that to no one, who has thoroughly entered into the spirit of his discoveries, will even the minutiae of the science offer any difficulty but that which is constituted by the necessity of patience and circumspection in tracing principles to their results.

Mr. Ricardo, while intending to go no further into the question of the advantage of foreign trade than to show what it consisted of, and under what circumstances it arose, unguardedly expressed himself as if

each of the two countries making the exchange separately gained the whole of the difference between the comparative costs of the two commodities in one country and in the other. But, the whole gain of both countries together, consisting in the saving of labour; and the saving of labour being exactly equal to the difference between the costs, in the two countries, of the one commodity as compared with the other; the two countries taken together gain no more than this difference: and if either country gains the whole of it, the other country derives no advantage from the trade.

Suppose, for example, that 10 yards of broad cloth cost in England as much labour as 15 yards of linen, and in Germany as much as 20. If England sends 10 yards of broad cloth to Germany, and is able to exchange them for linen according to the German cost of production, she will get 20 yards of linen, with a quantity of labour with which she could not have produced more than 15; and will gain, therefore, 5 yards on every 15, or  $33\frac{1}{3}$  per cent. But in this case Germany would obtain only 10 yards of cloth for 20 of linen. Now, 10 yards of cloth cost exactly the same quantity of labour in Germany as 20 of linen; Germany, therefore, derives no advantage from the trade, more than she would possess if it did not exist.

So, on the other hand, if Germany sends 15 yards of linen to England, and finding the relative value of the two articles in that country determined by the English costs of production, is enabled to purchase with 15 yards of linen 10 yards of cloth; Germany now gains 5 yards, just as England did before,—for with 15 yards of linen she purchases 10 yards of cloth, when to produce these 10 yards she must have employed as much labour as would have enabled her to produce 20 yards of linen. But in this case England would gain nothing:

she would only obtain, for her 10 yards of cloth, 15 yards of linen, which is exactly the comparative cost at which she could have produced them.

This, which was not an error, but a mere oversight of Mr. Ricardo, arising from his having left the question of the division of the advantage entirely unnoticed, was first corrected in the third edition of Mr. Mill's *Elements of Political Economy*. It can hardly, however, be said that Mr. Mill has prosecuted the inquiry any further; which, indeed, would have been quite as inconsistent with the nature of his plan as of Mr. Ricardo's.

1. When the trade is established between the two countries, the two commodities will exchange for each other at the same rate of interchange in both countries—bating the cost of carriage, of which, for the present, it will be more convenient to omit the consideration. Supposing, therefore, for the sake of argument, that the carriage of the commodities from one country to another could be effected without labour and without cost, no sooner would the trade be opened than, it is self-evident, the value of the two commodities, estimated in each other, would come to a level in both countries.

If we knew what this level would be, we should know in what proportion the two countries would share the advantage of the trade.

When each country produced both commodities for itself, 10 yards of broadcloth exchanged for 15 yards of linen in England, and for 20 in Germany. They will now exchange for the same number of yards of linen in both. For what number? If for 15 yards, England will be just as she was, and Germany will gain all. If for 20 yards, Germany will be as before, and England will derive the whole of the benefit. If

for any number intermediate between 15 and 20, the advantage will be shared between the two countries. If, for example, 10 yards of cloth exchange for 18 of linen, England will gain an advantage of 3 yards on every 15, Germany will save 2 out of every 20.

The problem is, what are the causes which determine the proportion in which the cloth of England and the linen of Germany will exchange for each other?

This, therefore, is a question concerning exchangeable value. There must be something which determines how much of one commodity another commodity will purchase; and there is no reason to suppose that the law of exchangeable value is more difficult of ascertainment in this case than in other cases.

The law, however, cannot be precisely the same as in the common cases. When two articles are produced in the immediate vicinity of one another, so that, without expatriating himself, or moving to a distance, a capitalist has the choice of producing one or the other, the quantities of the two articles which will exchange for each other will be, on the average, those which are produced by equal quantities of labour. But this cannot be applied to the case where the two articles are produced in two different countries; because men do not usually leave their country, or even send their capital abroad, for the sake of those small differences of profit which are sufficient to determine their choice of a business, or of an investment, in their own country and neighbourhood.

The principle, that value is proportional to cost of production, being consequently inapplicable, we must revert to a principle anterior to that of cost of production, and from which this last flows as a consequence, —namely, the principle of demand and supply.

In order to apply this principle, with any advantage,

to the solution of the question which now occupies us, the principle itself, and the idea attached to the term demand, must be conceived with a precision, which the loose manner in which the words are used generally prevents.

It is well known that the quantity of any commodity which can be disposed of, varies with the price. The higher the price, the fewer will be the purchasers, and the smaller the quantity sold. The lower the price, the greater will in general be the number of purchasers, and the greater the quantity disposed of. This is true of almost all commodities whatever: though of some commodities, to diminish the consumption in any given degree would require a much greater rise of price than of others.

Whatever be the commodity—the supply in any market being given, there is some price at which the whole of the supply exactly will find purchasers, and no more. That, whatever it be, is the price at which, by the effect of competition, the commodity will be sold. If the price be higher, the whole of the supply will not be disposed of, and the sellers, by their competition, will bring down the price. If the price be lower, there will be found purchasers for a larger supply, and the competition of these purchasers will raise the price.

This, then, is what we mean, when we say that price, or exchangeable value, depends on demand and supply. We should express the principle more accurately, if we were to say, the price so regulates itself that the demand shall be exactly sufficient to carry off the supply.

Let us now apply the principle of demand and supply, thus understood, to the interchange of broad-cloth and linen between England and Germany.

As exchangeable value in this case, as in every other, is proverbially fluctuating, it does not matter what we suppose it to be when we begin; we shall soon see whether there be any fixed point about which it oscillates—which it has a tendency always to approach to, and to remain at.

Let us suppose, then, that by the effect of what Adam Smith calls the higgling of the market, 10 yards of cloth, in both countries, exchange for 17 yards of linen. ••

The demand for a commodity, that is, the quantity of it which can find a purchaser, varies, as we have before remarked, according to the price. In Germany, the price of 10 yards of cloth is now 17 yards of linen; or whatever quantity of money is equivalent in Germany to 17 yards of linen. Now, that being the price, there is some particular number of yards of cloth, which will be in demand, or will find purchasers, at that price. There is some given quantity of cloth, more than which could not be disposed of at that price,—less than which, at that price, would not fully satisfy the demand. Let us suppose this quantity to be, 1000 times 10 yards.

Let us now turn our attention to England. There, the price of 17 yards of linen is 10 yards of cloth, or whatever quantity of money is equivalent in England to 10 yards of cloth. There is some particular number of yards of linen, which, at that price, will exactly satisfy the demand, and no more. Let us suppose that this number is 1000 times 17 yards.

As 17 yards of linen are to 10 yards of cloth, so are 1000 times 17 yards to 1000 times 10 yards. At the existing exchangeable value, the linen which England requires, will exactly pay for the quantity of cloth which, on the same terms of interchange,

Germany requires. The demand on each side is precisely sufficient to carry off the supply on the other. The conditions required by the principle of demand and supply are fulfilled, and the two commodities will continue to be interchanged, as we supposed them to be, in the ratio of 17 yards of linen for 10 yards of cloth.

But our supposition might have been different. Suppose that, at the assumed rate of interchange, England had been disposed to consume no greater quantity of linen than 800 times 17 yards; it is evident that, at the rate supposed, this would not have sufficed to pay for the 1000 times 10 yards of cloth, which we have supposed Germany to require at the assumed value, Germany would be able to procure no more than 800 times 10 yards, at that price. To procure the remaining 200, which she would have no means of doing but by bidding higher for them, she would offer more than 17 yards of linen in exchange for 10 yards of cloth; let us suppose her to offer 18. At that price, perhaps, England would be inclined to purchase a greater quantity of linen. She could consume, possibly, at that price, 900 times 18 yards. On the other hand, cloth having risen in price, the demand of Germany for it would, probably, have diminished. If, instead of 1000 times 10 yards, she is now contented with 900 times 10 yards, these will exactly pay for the 900 times 18 yards of linen which England is willing to take at the altered price: the demand on each side will again exactly suffice to take off the corresponding supply; and 10 yards for 18 will be the rate at which, in both countries, cloth will exchange for linen.

The converse of all this would have happened if instead of 800 times 17 yards, we had supposed that



England, at the rate of 10 for 17, would have taken 1200 times 17 yards of linen. In this case, it is England whose demand is not fully supplied; it is England who, by bidding for more linen, will alter the rate of interchange to her own disadvantage; and 10 yards of cloth will fall, in both countries, below the value of 17 yards of linen. By this fall of cloth, or what is the same thing, this rise of linen, the demand of Germany for cloth will increase, and the demand of England for linen will diminish, till the rate of interchange has so adjusted itself that the cloth and the linen will exactly pay for one another; and when once this point is attained, values will remain as they are.

It may be considered, therefore, as established, that when two countries trade together in two commodities, the exchangeable value of these commodities relatively to each other will adjust itself to the inclinations and circumstances of the consumers on both sides, in such manner that the quantities required by each country, of the article which it imports from its neighbour, shall be exactly sufficient to pay for one another. As the inclinations and circumstances of consumers cannot be reduced to any rule, so neither can the proportions in which the two commodities will be interchanged. We know that the limits within which the variation is confined are the ratio between their cost of production in the one country, and the ratio between their cost of production in the other. Ten yards of cloth cannot exchange for more than 20 yards of linen, nor for less than 15. But they may exchange for any intermediate number. The ratios, therefore, in which the advantage of the trade may be divided between the two nations, are various. The circumstances on which the proportionate share of each

country more remotely depends, admit only of a very general indication.

It is even possible to conceive an extreme case, in which the whole of the advantage resulting from the interchange would be reaped by one party, the other country gaining nothing at all. There is no absurdity in the hypothesis, that of some given commodity a certain quantity is all that is wanted at any price, and that when that quantity is obtained, no fall in the exchangeable value would induce other consumers to come forward, or those who are already supplied to take more. Let us suppose that this is the case in Germany with cloth. Before her trade with England commenced, when 10 yards of cloth cost her as much labour as 20 yards of linen, she nevertheless consumed as much cloth as she wanted under any circumstances, and if she could obtain it at the rate of 10 yards of cloth for 15 of linen, she would not consume more. Let this fixed quantity be 1000 times 10 yards. At the rate, however, of 10 for 20, England would want more linen than would be equivalent to this quantity of cloth. She would consequently offer a higher value for linen ; or, what is the same thing, she would offer her cloth at a cheaper rate. But as by no lowering of the value could she prevail on Germany to take a greater quantity of cloth, there would be no limit to the rise of linen, or fall of cloth, until the demand of England for linen was reduced by the rise of its value, to the quantity which one thousand times ten yards of cloth would purchase. It might be, that to produce this diminution of the demand, a less fall would not suffice, than one which would make 10 yards of cloth exchange for 15 of linen. Germany would then gain the whole of the advantage, and England would be exactly as she was before the

trade commenced. It would be for the interest, however, of Germany herself, to keep her linen a little below the value at which it could be produced in England, in order to keep herself from being supplanted by the home producer. England, therefore, would always benefit in some degree by the existence of the trade, though it might be in a very trifling one.

But in general there will not be this extreme inequality in the degree in which the demand in the two countries varies with variations in the price. The advantage will probably be divided equally, oftener than in any one unequal ratio that can be named; though the division will be much oftener, on the whole, unequal than equal.

2. We shall now examine whether the same law of interchange, which we have shown to apply upon the supposition of barter, holds good after the introduction of money. Mr. Ricardo found that his more general proposition stood this test; and as the proposition which we have just demonstrated is only a further development of his principle, we shall probably find that it suffers as little, by a mere change in the mode (for it is no more) in which one commodity is exchanged against another.

We may at first make whatever supposition we will with respect to the value of money. Let us suppose, therefore, that before the opening of the trade, the price of cloth is the same in both countries, namely, six shillings per yard.\* As 10 yards of cloth were supposed to exchange in England for 15 yards of linen, in Germany for 20, we must suppose that linen is sold in England at four shillings per yard, in Germany at

\* The figures used are of course arbitrary, having no reference to any

three. Cost of carriage and importer's profit are left, as before, out of consideration.

In this state of prices, cloth, it is evident, cannot yet be exported from England into Germany. But linen can be imported from Germany into England. It will be so, and, in the first instance, the linen will be paid for in money.

The efflux of money from England, and its influx into Germany, will raise money prices in the latter country, and lower them in the former. Linen will rise in Germany above three shillings per yard, and cloth above six shillings. Linen in England being imported from Germany, will (since cost of carriage is not reckoned) sink to the same price as in that country, while cloth will fall below six shillings. As soon as the price of cloth is lower in England than in Germany, it will begin to be exported, and the price of cloth in Germany will fall to what it is in England. As long as the cloth exported does not suffice to pay for the linen imported, money will continue to flow from England into Germany, and prices generally will continue to fall in England, and rise in Germany. By the fall, however, of cloth in England, cloth will fall in Germany also, and the demand for it will increase. By the rise of linen in Germany, linen must rise in England also, and the demand for it will diminish. Although the increased exportation of cloth takes place at a lower price, and the diminished importation of linen at a higher, yet the total money value of the exportation would probably increase, that of the importation diminish. As cloth fell in price and linen rose, there would be some particular price of both articles at which the cloth exported, and the linen imported, would exactly pay for each other. At this point prices would remain, because money would then cease to

move out of England into Germany. What this point might be, would entirely depend upon the circumstances and inclinations of the purchasers on both sides. If the fall of cloth did not much increase the demand for it in Germany, and the rise of linen did not diminish very rapidly the demand for it in England, much money must pass before the equilibrium is restored ; cloth would fall very much, and linen would rise, until England, perhaps, had to pay nearly as much for it as when she produced it for herself. But if, on the contrary, the fall of cloth caused a very rapid increase of the demand for it in Germany, and the rise of linen in Germany reduced very rapidly the demand in England from what it was under the influence of the first cheapness produced by the opening of the trade ; the cloth would very soon suffice to pay for the linen, little money would pass between the two countries, and England would derive a large portion of the benefit of the trade. We have thus arrived at precisely the same conclusion, in supposing the employment of money, which we found to hold under the supposition of barter.

In what shape the benefit accrues to the two nations from the trade, is clear enough. Germany, before the commencement of the trade, paid six shillings per yard for broadcloth. She now obtains it at a lower price. This, however, is not the whole of her advantage. As the money prices of all her other commodities have risen, the money incomes of all her producers have increased. This is no advantage to them in buying from each other ; because the price of what they buy has risen in the same ratio with their means of paying for it : but it is an advantage to them in buying anything which has not risen ; and still more, anything which has fallen. They therefore benefit as consumers of cloth, not merely to the extent to which

cloth has fallen, but also to the extent to which other prices have risen. Suppose that this is one-tenth. The same proportion of their money incomes as before, will suffice to supply their other wants, and the remainder, being increased one-tenth in amount, will enable them to purchase one-tenth more cloth than before, even though cloth had not fallen. But it has fallen : so that they are doubly gainers. If they do not choose to increase their consumption of cloth, this does not prevent them from being gainers. They purchase the same quantity with less money, and have more to expend upon their other wants.

In England, on the contrary, general money-prices have fallen. Linen, however, has fallen more than the rest ; having been lowered in price, by importation from a country where it was cheaper, whereas the others have fallen only from the consequent efflux of money. Notwithstanding, therefore, the general fall of money-prices, the English producers will be exactly as they were in all other respects, while they will gain as purchasers of linen.

The greater the efflux of money required to restore the equilibrium, the greater will be the gain of Germany ; both by the fall of cloth, and by the rise of her general prices. The less the efflux of money requisite, the greater will be the gain of England ; because the price of linen will continue lower, and her general prices will not be reduced so much. It must not, however, be imagined that high money-prices are a good, and low money-prices an evil, in themselves. But the higher the general money-prices in any country, the greater will be that country's means of purchasing those commodities which, being imported from abroad, are independent of the causes which keep prices high at home.

3. We have hitherto supposed the carriage to be performed without labour or expense. If we abandon this supposition, we must correct the statement of the case in a slight degree. The prices of the two articles will no longer, when the trade is opened, be the same in both countries, nor will the articles exchange for one another at the same rate in both. Ten yards of cloth will purchase in Germany a quantity of linen greater than in England by a per-centage equal to the entire cost of conveyance both of the cloth to Germany and of the linen to England. The money-price of linen will be higher in England than in Germany, by the cost of carriage of the linen. The money-price of cloth will be higher in Germany than in England, by the cost of carriage of the cloth.

The expense of the carriage is evidently a deduction *pro tanto* from the saving of labour produced by the establishment of the trade. The two countries together, therefore, have their gains by the trade diminished, by the amount of the cost of carriage of both commodities. But here the question arises, which of the two countries bears this deduction, or in what proportion it is divided between them.

At the first inspection it would appear that each country bears its own cost of carriage, that is, that each country pays the carriage of the commodity which it imports. Upon this supposition, each country would gain whatever share of the joint saving of labour would otherwise fall to its lot, *minus* the cost of bringing from the other country the commodity which it imports. This solution is rendered plausible by the circumstance just now mentioned, that the price of the commodity will be higher in the country which imports it, than in the country which exports it, by the amount of the cost of carriage. If linen is sold in England at a

higher price than in Germany, by a per-centage equal to the cost of carriage of the linen, it appears obvious that England pays for the carriage of the linen, and Germany, by parity of reason, for that of the cloth.

But if we apply to these questions the principles already explained, we shall see that this is not by any means a universal law : the fact may correspond with it, or it may not.

For suppose that the prices have adjusted themselves, no matter how, and that the imports and exports balance one another, each commodity, of course, being dearer by the cost of carriage, in the country which imports than in that which exports it : and suppose now that the cost of carriage, both of the one and of the other, were suddenly and miraculously annihilated, and that the commodities could pass from country to country without expense. If each country bore its own cost of carriage before, each country will save its own cost of carriage now. Cloth, in Germany, will in that case fall exactly to what it is in England ; linen in England, to what it is in Germany.

Now this fall of price, supposing it to happen, will probably affect the demand on both sides ; and it will either affect it alike in both countries, or it will affect it unequally. It will affect it alike, if the fall of price does not affect the demand at all, or if it affects it equally in both countries. If either of these results should take place, the cloth and the linen would continue to balance each other as before : no money would pass from one country to the other ; prices in both would continue at the point to which they had fallen, and each country would exactly save the cost of carriage on the commodity which it imports from the other.

But the result might be, that the fall of price might not have an effect exactly equal, on the demand in the



two countries. Suppose, for instance, that the fall of cloth in Germany owing to the saving of the cost of carriage, did not increase the demand for cloth in Germany; but that the fall of linen in England from a like cause, did increase the demand for linen in England. The linen imported would be more than could be paid for by the cloth exported: the difference must be paid in money: the change in the distribution of the precious metals between the two countries would lower the price of cloth in England, (and consequently in Germany), while it would raise the price of linen in Germany, (and consequently in England). Germany, therefore, by the annihilation of cost of carriage, would save in price more than the cost of carriage of the cloth; England would save less in price than the cost of carriage of the linen. But if by the miraculous annihilation of cost of carriage, England would not *save* the whole of the carriage of her imports, it follows that England did not previously *pay* the whole of that cost of carriage.

Thus, the division of the cost of trade, and the division of the advantage of trade, are governed by precisely the same principles; and the only general proposition which can be affirmed respecting the cost is, that it is *pro tanto* a deduction from the advantage. It cannot even be maintained that the cost is shared in the same proportion as the advantage is; because the increase of the demand for a commodity as its price falls, is not governed by any fixed law. Suppose, for instance, that the advantage happened to be divided equally: this must be because the greater cheapness arising from the establishment of the trade, either did not affect the demand at all, or affected it in an equal proportion on both sides. Now, because such is the effect of the degree of increased cheapness

resulting from importation burthened with cost of carriage, it would not follow that the still greater degree of cheapness, produced by the additional saving of the cost of carriage itself, would also affect the demand of both countries in precisely an equal degree. But we cannot be said to bear an expense, which, if saved, would be saved to somebody else, and not to us. Two countries may have equal shares of the clear benefit of the trade, while, if the cost of carriage were saved, they would divide that saving unequally. If so, they divide the gross gain in one unequal ratio, the cost in another unequal ratio, though their shares of the cost being deducted from their shares of the gain leave equal remainders.

4. The question naturally suggests itself, whether any country, by its own legislative policy, can engross to itself a larger share of the benefits of foreign commerce, than would fall to it in the natural or spontaneous course of trade.

The answer is, it can. By taxing exports, for instance, we may, under certain circumstances, produce a division of the advantage of the trade more favourable to ourselves. In some cases, we may draw into our coffers, at the expense of foreigners, not only the whole tax, but more than the tax: in other cases, we should gain exactly the tax,—in others, less than the tax. In this last case, a part of the tax is borne by ourselves: possibly the whole, possibly even, as we shall show, more than the whole.

Suppose that England taxes her export of cloth: the tax not being supposed high enough to induce Germany to produce cloth for herself. The price at which cloth can be sold in Germany is augmented by the tax. This will probably diminish the quantity consumed. It may diminish it so much, that even at

*the increased price there will not be required so great a money value as before. It may diminish it in such a ratio, that the money value of the quantity consumed will be exactly the same as before. Or it may not diminish it at all, or so little, that, in consequence of the higher price, a greater money value will be purchased than before. In this last case, England will gain, at the expense of Germany, not only the whole amount of the duty, but more. For the money value of her exports to Germany being increased, while her imports remain the same, money will flow into England from Germany. The price of cloth will rise in England, and consequently in Germany; but the price of linen will fall in Germany, and consequently in England. We shall export less cloth, and import more linen, till the equilibrium is restored. It thus appears, what is at first sight somewhat remarkable, that, by taxing her exports, England would, under some conceivable circumstances, not only gain from her foreign customers the whole amount of the tax, but would also get her imports cheaper. She would get them cheaper in two ways,—for she would obtain them for less money, and would have more money to purchase them with. Germany, on the other hand, would suffer doubly: she would have to pay for her cloth a price increased not only by the duty, but by the influx of money into England, while the same change in the distribution of the circulating medium would leave her less money to purchase it with.*

This, however, is only one of three possible cases. If, after the imposition of the duty, Germany requires so diminished a quantity of cloth, that its total money value is exactly the same as before, the balance of trade will be undisturbed: England will gain the duty, Germany will lose it, and nothing more. If, again,

the imposition of the duty occasions such a falling off in the demand, that Germany requires a less pecuniary value than before, our exports will no longer pay for our imports, money must pass from England into Germany, and Germany's share of the advantage of the trade will be increased. By the change in the distribution of money, cloth will fall in England; and therefore it will, of course, fall in Germany. Thus Germany will not pay the whole of the tax. From the same cause, linen will rise in Germany, and consequently in England. When this alteration of prices has so adjusted the demand, that the cloth and the linen again pay for one another, the result is, that Germany has paid only a part of the tax, and the remainder of what has been received into our treasury has come indirectly out of the pockets of our own consumers of linen, who pay a higher price for that imported commodity, in consequence of the tax on our exports, while at the same time they, in consequence of the efflux of money and consequent fall of prices, have smaller money incomes wherewith to pay for the linen at that advanced price.

It is not an impossible supposition that, by taxing our exports, we might not only gain nothing from the foreigner, the tax being paid out of our own pockets, but might even compel our own people to pay a second tax to the foreigner. Suppose, as before, that the demand of Germany for cloth falls off so much on the imposition of the duty, that she requires a smaller money value than before, but that the case is so different with linen in England, that when the price rises the demand either does not fall off at all, or so little that the money value required is greater than before. The first effect of laying on the duty is, as before, that the cloth exported will no longer pay for

the linen imported. Money will, therefore, flow out of England into Germany. One effect is to raise the price of linen in Germany, and, consequently, in England. But this, by the supposition, instead of stopping the efflux of money, only makes it greater, because the higher the price, the greater the money value of the linen consumed. The balance, therefore, can only be restored by the other effect, which is going on at the same time, namely, the fall of cloth in the English, and, consequently, in the German market. Even when cloth has fallen so low that its price with the duty is only equal to what its price without the duty was at first, it is not a necessary consequence that the fall will stop; for the same amount of exportation as before will not now suffice to pay the increased money value of the imports; and although the German consumers have now not only cloth at the old price, but likewise increased money incomes, it is not certain that they will be inclined to employ the increase of their incomes in increasing their purchases of cloth. The price of cloth, therefore, must perhaps fall, to restore the equilibrium, more than the whole amount of the duty; Germany may be enabled to import cloth at a lower price when it is taxed, than when it was untaxed: and this gain she will acquire at the expense of the English consumers of linen, who, in addition, will be the real payers of the whole of what is received at their own custom-house under the name of duties on the export of cloth.

Such are the extremely various effects which may result to ourselves, and to our customers, from the imposition of taxes on our exports:\* and the determining

\* We have not deemed it necessary to enter minutely into all the circumstances which might modify the results mentioned in the text. For

circumstances are of a nature so imperfectly ascertainable, that it must be almost impossible to decide with any certainty, even after the tax has been imposed, whether we have been gainers by it or losers. It is certain, however, that whatever we gain, is lost by somebody else, and there is the expense of the collection besides: if international morality, therefore, were rightly understood and acted upon, such taxes, as being contrary to the universal weal, would not exist. Moreover, the imposition of such a tax frequently will, and always may, expose a country to lose this branch of its trade altogether, or to carry it on with diminished advantage, in consequence of the competition of untaxed exporters from other countries, or of the domestic producers in the country to which it exports. Even on the most selfish principles, therefore, the benefit of such a tax is always extremely precarious.

5. We have had an example of a tax on exports, that is, on foreigners, falling in part on ourselves. We

example, let us revert to the first case, that in which the demand for cloth in Germany is so little affected by the rise of price in consequence of the tax, that the quantity bought exceeds in pecuniary value what it was before. As the German consumers lay out more money in cloth, they have less to lay out in other things; other money prices will fall; among the rest that of linen; and this may so increase the demand for linen in England as to restore the equilibrium of exports and imports without any passage of money. But England's treasury will still gain from Germany the whole of the tax, and the English people will buy their linen cheaper besides. Again, in the opposite case, where the tax so diminishes the demand, that a smaller pecuniary value is required than before. The German consumers have, therefore, more to expend in other things; these, and among the rest linen, will rise; and this may so diminish the demand for linen in England, as to restore the equilibrium without the transmission of money. But the effect, as respects the division of the advantage, is still as stated in the text.

shall, therefore, not be surprised if we find a tax on imports, that is, on ourselves, partly falling upon foreigners.

Instead of taxing the cloth which we export, suppose that we tax the linen which we import. The duty which we are now supposing must not be what is termed a protecting duty, that is, a duty sufficiently high to induce us to produce the article at home. If it had this effect, it would destroy entirely the trade both in cloth and in linen, and both countries would lose the whole of the advantage which they previously gained by exchanging those commodities with one another. We suppose a duty which might diminish the consumption of the article, but which would not prevent us from continuing to import, as before, whatever linen we did consume.

The equilibrium of trade would be disturbed if the imposition of the tax diminished in the slightest degree the quantity of linen consumed. For, as the tax is levied at our own custom-house, the German exporter only receives the same price as formerly, though the English consumer pays a higher one. If, therefore, there be any diminution of the quantity bought, although a larger sum of money may be actually laid out in the article, a smaller one will be due from England to Germany: this sum will no longer be an equivalent for the sum due from Germany to England for cloth, the balance therefore must be paid in money. Prices will fall in Germany, and rise in England; linen will fall in the German market; cloth will rise in the English. The Germans will pay a higher price for cloth, and will have smaller money incomes to buy it with; while the English will obtain linen cheaper, that is, its price will exceed what it

previously was by less than the amount of the duty, while their means of purchasing it will be increased by the increase of their money incomes.

If the imposition of the tax does not diminish the demand, it will leave the trade exactly as it was before. We shall import as much, and export as much; the whole of the tax will be paid out of our own pockets.

But the imposition of a tax on a commodity, almost always diminishes the demand more or less; and it can never, or scarcely ever increase the demand. It may, therefore, be laid down as a principle, that a tax on imported commodities, when it really operates as a tax, and not as a prohibition, either total or partial, almost always falls in part upon the foreigners who consume our goods: and that this is a mode in which a nation may be almost sure of appropriating to itself, at the expense of foreigners, a larger share than would otherwise belong to it of the increase in the general productiveness of the labour and capital of the world, which results from the interchange of commodities among nations.

It is scarcely necessary to observe, that no such advantage can result from the duty, if it operate as a protecting duty; if it induce the country which imposes it, to produce for herself that which she would otherwise have imported. The saving of labour—the increase in the general productiveness of the capital of the world—which is the effect of commerce, and which a non-protecting duty would enable the country imposing it to engross, could not be engrossed by a protecting duty, because such a duty prevents any such increased production from existing.

With a view to practical legislation, therefore, duties on importation may be divided into two classes:



those which have the effect of encouraging some particular branch of domestic industry, and those which have not.

The former are purely mischievous, both to the country imposing them, and to those with whom it trades. They prevent a saving of labour and capital, which, if permitted to be made, would be divided in some proportion or other between the importing country and the countries which buy what that country does or might export.

The other class of duties are those which do not encourage one mode of procuring an article at the expense of another, but allow interchange to take place just as if the duty did not exist—and to produce the saving of labour which constitutes the motive to international as to all other commerce. Of this kind, are duties on the importation of any commodity which could not by any possibility be produced at home; and duties not sufficiently high to counterbalance the difference of expense between the production of the article at home, and its importation. Of the money which is brought into the treasury of any country by taxes of this last description, a part only is paid by the people of that country; the remainder by the foreign consumers of their goods.

Nevertheless, this latter kind of taxes are in principle as ineligible as the former, although not precisely on the same ground. A protecting duty can never be a cause of gain, but always and necessarily of loss, to the country imposing it, just so far as it is efficacious to its end. A non-protecting duty on the contrary would, in most cases, be a source of gain to the country imposing it, in so far as throwing part of the weight of its taxes upon other people is a gain; but it would be a means of gain which it could seldom

be advisable to adopt, being so easily counteracted by a precisely similar proceeding on the other side.

If England, in the case already supposed, sought to obtain for herself more than her natural share of the advantage of the trade with Germany, by imposing a duty upon cloth, Germany would only have to impose a duty upon linen, sufficient to diminish the demand for that article about as much as the demand for cloth had been diminished in England by the tax. Things would then be as before, and each country would pay its own tax. Unless, indeed, the sum of the two duties exceeded the entire advantage of the trade ; for in that case the trade, and its advantage, would cease entirely.

There would be no advantage, therefore, in imposing duties of this kind, with a view to gain by them, in the manner which has been pointed out. But so long as any other kind of taxes on commodities are retained, as a source of revenue, these may often be as unobjectionable as the rest. It is evident, moreover, that considerations of reciprocity, which are quite unessential when the matter in debate is a protecting duty, are of material importance when the repeal of duties of this other description is discussed. A country cannot be expected to renounce the power of taxing foreigners, unless foreigners will in return practise towards itself the same forbearance. The only mode in which a country can save itself from being a loser by the duties imposed by other countries on its commodities, is to impose corresponding duties on theirs. Only it must take care that these duties be not so high as to exceed all that remains of the advantage of the trade, and put an end to importation altogether ; causing the article to be either produced at home, or imported from another and a dearer market.

It is not necessary to apply the principles which we have stated to the case of bounties on exportation or importation. The application is easy, and the conclusions present nothing of particular interest or importance.

6. Any cause which alters the exports or imports from one country into another, alters the division of the advantage of interchange between those two countries. Suppose the discovery of a new process, by which some article of export, or some article not previously exported, can be produced so cheap as to occasion a great demand for it in other countries. This of course produces a great influx of money from other countries, and lowers the prices of all articles imported from them, until the increase of importation produced by this cause has restored the equilibrium. Thus, the country which acquires a new article of export gets its imports cheaper. This is not a case of mere alteration in the division of the advantage; it is a new advantage created by the discovery.

But suppose that the invention, to which the nation is indebted for this increase of the return to its industry, comes into use also in the other country, and that the process is one which can be as perfectly and as cheaply performed in the one country as in the other. The new exportation will cease; trade will revert to its old channels, the money which flowed in will again flow out, and the country which invented the process will lose that increase of its gain by trade, which it had derived from the discovery.

Now the exportation of machinery comes within the case which we have just described.

If the fact be, that by allowing to foreigners a participation in our machinery, we enable them to produce any of our leading articles of export, at a

lower money price than we can sell those articles, it is certain that unless we possess as great an advantage in the production of the machinery itself as we have in the production of other articles by means of machinery, the permitting of its exportation would alter to our disadvantage the division of the benefit of trade. Our exports being diminished, we should have to pay a balance in money. This would raise, in foreign countries, the price of everything which we import from thence: while our incomes, being reduced in money value, would render us less able to buy those articles even if they had not risen. The equilibrium of exports and imports would only be restored, when either some of the latter became so dear that we could produce them cheaper at home, or some articles not previously exported became exportable from the fall of prices. In the one case, we lose the benefit of importation altogether, and are obliged to produce at home, at a greater cost. In the other case, we continue to import, but pay dearer for our imports.

Notwithstanding what has now been observed, restrictions on the exportation of machinery are not, in our opinion, justifiable, either on the score of international morality or of sound policy. It is evidently the common interest of all nations that each of them should abstain from every measure by which the aggregate wealth of the commercial world would be diminished, although of this smaller sum total it might thereby be enabled to attract itself a larger share. And the time will certainly come when nations in general will feel the importance of this rule, and will so direct their approbation and disapprobation as to enforce observance of it. Moreover, a country possessing machines would consider that if a similar advantage were extended to other countries,

they would employ it above all in the production of those articles, in which they had already the greatest natural advantages; and if the former country would be a loser by their improvements in the production of articles which it sells, it would gain by their improvements in those which it buys. The exportation of machinery may, however, be a proper subject for adjustment with other nations, on the principle of reciprocity. Until, by the common consent of nations, all restrictions upon trade are done away, a nation cannot be required to abolish those from which she derives a real advantage, without stipulating for an equivalent.

7. The case which we have just examined, is an example in how remarkable a manner every cause which materially influences exports, operates upon the prices of imports. According to the ancient theory of the balance of trade, and to the associations of the generality of what are termed practical men to this day, the sole benefit derived from commerce consists in the exports, and imports are rather an evil than otherwise. Political economists, seeing the folly of these views, and clearly perceiving that the advantage of commerce consists and must consist solely of the imports, have occasionally suffered themselves to employ language evincing inattention to the fact, that exports, though unimportant in themselves, are important by their influence on imports. So real and extensive is this influence, that every new market which is opened for any of our goods, and every increase in the demand for our commodities in foreign countries, enables us to supply ourselves with foreign commodities at a smaller cost.

Let us revert to our earliest and simplest example, but which displays the real law of interchange more

luminously than any formula into which money enters ; the case of simple barter. We showed, that if at the rate of 10 yards of cloth for 17 of linen, the demand of Germany amounted to 1000 times 10 yards of cloth, the two nations will trade together at that rate of interchange, provided that the linen required in England be exactly 1000 times 17 yards, neither more or less. For the cloth and the linen will then exactly pay for one another, and nobody on either side will be obliged to offer what he has to sell at a lower rate, in order to procure what he wants to buy.

Now if the increase of wealth and population in Germany should greatly increase the demand in that country for cloth, the demand for linen in England not increasing in the same ratio,—if, for instance, Germany became willing, at the above rate, to take 1500 times 10 yards ; is it not evident, that to induce England to take in exchange for this the only article which Germany by supposition has to give, the latter must offer it at a rate more advantageous to England—at 18, or perhaps 19 yards, for 10 of cloth ? So that the division of the advantage becomes more and more favourable to a country, in proportion as the demand for its commodities increases in foreign countries.

It is not even necessary that the country which takes its goods, should supply it with any commodity whatever. Suppose that a country should be opened to our merchants, disposed to buy from us in abundance, but which can sell to us scarcely anything, as every commodity which it affords could be got cheaper by us from some other quarter. Nevertheless, our trade with this country will enable us to obtain from all other countries their commodities at a lower price. At the first opening of this commerce of mere expor-

tation, we must have received in payment a large quantity of money ; for which our customer will have been indemnified by other countries, in exchange for her commodities. Prices must consequently be lower in all other countries, and higher with us, than before the opening of the new branch of trade ; and we therefore obtain the commodities of other countries at a less cost, both as we pay less money for them, and as that money is lower in value.

8. Another obvious application of the same principle will enable us to explain, and to bring within the dominion of strict science, the rivalry of one exporting nation and another, or what is called, in the language of the mercantile system, *underselling* : a subject which political economists have taken little trouble to elucidate, from the habit before alluded to of disregarding almost entirely, in their purely scientific inquiries, those circumstances which affect the trade of a country by operating immediately upon the exports.

Let us revert to our old example, and to our old figures. Suppose that the trade between England and Germany in cloth and linen is established, and that the rate of interchange is 10 yards of cloth for 17 of linen. Now suppose that there arises in another country, in Flanders, for example, a linen manufacture ; and that the same causes, the working of which in England and Germany has made 10 yards exchange for 17, would in England and Flanders, putting Germany out of the question, have made the rate of interchange 10 for 18. It is evident that Germany also must give 18 yards of linen for 10 of cloth, and so carry on the trade with a diminished share of the advantage, or lose it altogether. If the play of demand in England and Flanders had made

the rate of interchange not 10 for 18 but 10 for 21, (10 to 20 being in Germany the comparative cost of production), it is evident that Germany could not have maintained the competition, and would have lost, not part of her share of the advantage, but all advantage; and the trade itself.

It would be no answer to say, that Germany could probably still have found the means of importing cloth from England, by exporting something else. If she had purchased cloth with anything else, she would have purchased it dearer: as is proved by the fact, that having free choice, she found it most advantageous to purchase it with linen. When she could get 10 yards of cloth for 17 of linen, that was the mode in which she could get it with least labour. Being pressed by competition, she gave successively  $17\frac{1}{2}$ , 18,  $18\frac{1}{2}$ ; but rather than give 19 yards of linen, she perhaps would prefer to give, as costing her rather less labour, 10 yards of silk (which we will suppose to be the quantity which in England will purchase 10 yards of cloth). It is obvious that, although Germany has found the means of supplying herself with cloth, by exporting a different article from that in which she was undersold, yet the advantage of the trade between her and England is now shared in a proportion much less favourable to Germany.

There is no difficulty in showing that the same series of consequences takes place in exactly the same manner through the agency of money. The trade in cloth and linen between England and Germany being supposed to exist as before, Flanders produces linen at a lower price than that at which Germany has hitherto afforded it. The exportation from Germany is suspended; and Germany, continuing to import cloth,



pays for it in money. By so doing she lowers her own prices, and raises those in England: she has to pay more money for cloth, and to pay it in a currency of higher value. She thus suffers more and more as a consumer of cloth, until by the fall of her prices she can either afford to sell linen as cheap as Flanders, or to export some other commodity which she could not export before. In either case, her trade resumes its course, but with diminished advantage on her side.\*

It is in the mode just described, that those countries which formerly supplied Europe with manufactures, but which owed their power of doing so not to

\* The world at large, sellers and buyers taken together, is always a gainer by underselling. If, in the case supposed, England were compelled by a commercial treaty to exclude the linen of Flanders from her market, the total wealth of the world, if affected at all, would be diminished.

For, what is the cause which enables Flanders to undersell Germany? That Flanders, if she had the trade, would exchange linen for cloth at a rate of interchange more advantageous to England. And why can Flanders do so? It must be either because Flanders can produce the article with a less comparative quantity of labour than Germany, and therefore the total advantage to be divided between the two countries is greater in the case of Flanders than of Germany; or else because, though the total advantage is not greater, Flanders obtains a less share of it, her demand for cloth being greater, at the same rate of interchange, than that of Germany. In the former case, to exclude Flemish linen from England would be to prevent the world at large from making a greater saving of labour instead of a less. In the latter, the exclusion would be inefficacious for the only end it could be intended for, viz., the benefit of Germany, unless Flemish money were excluded from England as well as Flemish linen. For Flanders would buy English cloth, paying for it in money, until the fall of her prices enabled her to pay for it with something else: and the ultimate result would be that, by the rise of prices in England, Germany must pay a higher price for her cloth, and so lose a part of the advantage in spite of the treaty; while England would pay for German linen the same price indeed, but as the money incomes of her own people would be increased, the same money price would imply a smaller sacrifice.

any natural and permanent advantages, but to their more advanced state of civilisation as compared with other countries, have lost their pre-eminence as other countries successively attained an equal degree of civilisation. Lombardy and Flanders, in the middle ages, produced some descriptions of clothing and ornament for all Europe : Holland, at a much later period, supplied ships, and almost all articles which came in ships, to most other parts of the world. All these countries have probably at this moment a much larger amount of capital than ever they had, but having been undersold by other countries, they have lost by far the greater part of the share which they had engrossed to themselves of the benefit which the world derives from commerce ; and their capital yields to them in consequence a smaller proportional return. We are aware that other causes have contributed to the same effect, but we cannot doubt that this is a principal one.

As much as is really true of the great returns alleged to have been made to capital during the last war, must have arisen from a similar cause. Our exclusive command of the sea excluded from the market all by whom we should have been undersold.

The adoption by France, Russia, the Netherlands, and the United States, of a more severely restrictive commercial policy, subsequently to 1815, has done great injury undoubtedly to those countries ; for the duties which they have established are intended to be, and really are, of the class termed *protecting* ; that is to say, such as force the production of commodities by more costly processes at home, instead of suffering them to be imported from abroad. But these duties, though chiefly injurious to the countries imposing them, have also been highly injurious to

England. By diminishing her exportation, or preventing it from increasing as it would otherwise have done, they have kept up the prices of all imported commodities in England, above what those prices would have fallen to if trade had been left free.

By another obvious application of the same reasoning, it will be seen, that there is a real foundation for the notion, that a country may be benefited by receiving from another country the concession of what used to be termed commercial advantages, or by restraining its colonies from purchasing goods of any country except itself. In the figured illustration last used (p. 34), it is evident, that if England had been bound by a treaty with Germany to buy linen exclusively from her, Germany would have retained the trade which we supposed her to lose, and would have continued to purchase cloth at a comparatively cheap rate from England, instead of producing it by a more costly process at home. Suppose that England had been a colony of Germany, and we see that by compelling colonies to deal at her shop, she may obtain a real advantage, though of a nature which we may hazard the assertion that the founders of our colonial policy little dreamt of.

Such an advantage, however, being gained at the expense of another country, is, at the least, simply equivalent to a tax, or tribute. Now, if a country has just grounds, or deems superiority of power a sufficient ground, for exacting a tribute from another country, the most direct mode is the best. First, because it is the most intelligible, and has least of trick or disguise. Secondly, because it allows the people of the country paying the tribute, to raise the money in whatever way they consider least oppressive

to themselves. Thirdly, because the indirect mode of taxing a country, by restrictions on its commerce, disturbs the distribution of industry most advantageous to the world at large, and occasions a greater loss to the restricted country, and to the other countries with which that country would have traded, than gain to the country in whose favour the restrictions are imposed. And lastly, because a country never could obtain such privileges from an independent nation, and has seldom been so undisguised an oppressor as to demand them even from its colonies, without subjecting itself to restrictions in some degree equivalent, for the benefit of those whom it has thus taxed. Each country, therefore, usually pays tribute to the other ; and to produce this fruitless reciprocity of exaction, the industry and trade of both countries are diverted from the most advantageous channels, and the return to the labour and capital of both is diminished, in pure loss.

9. The same principles which have led to the above conclusions, also suggests a remark of some importance with respect to the probable effect of a change from a restricted to a comparatively free trade.

There is no doubt that our prohibiting the importation of a particular article, which, but for the prohibition, would have been imported, enables us to obtain our other imports at smaller cost. The article for which we have the greatest demand, and for which our demand is most increased by cheapness, is that which we should naturally import preferably to any other ; now of this article we should import the quantity necessary to pay for our exports, on terms of interchange less advantageous to us than in the case of any other commodity. If our legislature prohibits

this commodity, the other country will be obliged to offer any other article on easier terms, in order to force a sufficient demand for it to be an equivalent to what she purchases from us.

The steps of the process, money being used, would be these :—We prohibit the importation of linen. The exportation of cloth continues, but is paid for in money. Our prices rise, those in Germany fall, until silk, or some other article, can be imported from Germany cheaper than it can be produced at home, and in sufficient abundance to balance the export of cloth. Thus by sacrificing the cheapness of one commodity, we gain the cheapness of another : but we sacrifice a greater cheapness to gain a less, and we sacrifice cheapness in the article which we most want, and would import by preference, while our compensation is cheapness in an article which we either could produce more advantageously at home, or which we have so little desire for, that it requires a species of bounty on the article to create a demand.

Restrictions on importation do, however, tend to keep down the value and price of our remaining imports, and to keep up the nominal or money prices of all our other commodities, by retaining a greater quantity of money in the country than would otherwise be there. From this it obviously follows, that if the restrictions were removed, we should have to pay rather more for some of the articles which we now import, while those which we are now prevented from importing would cost us more than might be inferred from their *present* price in the foreign market. And general prices would fall ; to the benefit of those who have fixed sums to receive ; to the disadvantage of those who have fixed sums to pay ; and giving rise, as a general fall of prices always does, to an appearance,

though a temporary and fallacious one, of general distress.\*

It is right to observe that the measures of the British Legislature which have been falsely characterised as measures of free trade, must, from their extremely insignificant extent, have produced far too little effect in increasing our importation, to have actually led, in any degree worth mentioning, to the results specified above.

It is of greater importance to take notice, that these effects may be entirely obviated, if foreign countries can be prevailed upon simultaneously to relax their restrictive systems, so as to create an immediate increase of demand for our exports at the present prices. It is true that exports and imports must, in the end, balance one another, and if we increase our imports, our exports will of necessity increase too. But it is a forced increase, produced by an efflux of money and fall of prices; and this fall of prices being permanent, although it would be no evil at all in a country where credit is unknown, it may be a very serious one where large classes of persons, and the nation itself, are under engagements to pay fixed sums of money of large amount.

10. The only remaining application of the principle set forth in this essay, which we think it of importance to notice specially, is the effect produced upon a country by the annual payment of a tribute or subsidy to a foreign power, or by the annual remittance of rents to absentee landlords, or of any other kind of income to its absent owners. Remittances to absentees are often

\* This last possible effect of a sudden introduction of free trade, was pointed out in an able article on the Silk question, in a work of too short duration, the *Parliamentary Review*.

very incorrectly likened in their general character to the payment of a tribute ; from which they differ in this very material circumstance, that tribute, if not paid to a foreign country, is not paid at all, whereas rents are paid to the landlord, and consumed by him, even if he resides at home. The two kinds of payment, however, have a perfect resemblance to each other in such parts of their effects as we are about to point out.

The tribute, subsidy, or remittance, is always in goods ; for, unless the country possesses mines of the precious metals, and numbers those metals among its regular articles of export, it cannot go on, year after year, parting with them, and never receiving them back. When a nation has regular payments to make in a foreign country, for which it is not to receive any return, its exports must annually exceed its imports by the amount of the payments which it is bound so to make. In order to force a demand for its exports greater than its imports will suffice to pay for, it must offer them at a rate of interchange more favourable to the foreign country, and less so to itself, than if it had no payments to make beyond the value of its imports. It therefore carries on the trade with less advantage, in consequence of the obligations to which it is subject towards persons resident in foreign countries.

The steps of the process are these. The exports and imports being in equilibrium, suppose a treaty to be concluded, by which the country binds itself to pay in tribute to another country, a certain sum annually. It makes, perhaps, the first payment by a remittance of money. This lowers prices in the paying country, and raises them in the receiving one : the exports of the tributary country increase, its imports diminish. When the efflux of money has altered prices in the requisite

degree, the exports exceed the imports annually, by the amount of the tribute ; and the latter, being added to the sum of the payments due, restores the balance of payments between the two countries. The result to the tributary country is a diminution of her share in the advantage of foreign trade. She pays dearer for her imports, in two ways, because she pays more money, and because that money is of higher value, the money incomes of her inhabitants being of smaller amount.

Thus the imposition of a tribute is a double burthen to the country paying it, and a double gain to that which receives it. The tributary country pays to the other, first, the tax, whatever be its amount, and next, something more, which the one country loses in the increased cost of its imports, the other gains in the diminished cost of its own.

Absenteeism, moreover, though not burthensome in the former of these ways, since the money is paid whether the receiver be an absentee or not, is yet disadvantageous in the second of the two modes which have been mentioned. Ireland pays dearer for her imports in consequence of her absentees ; a circumstance which the assailants of Mr. M'Culloch, whether political economists or not, have not, we believe, hitherto thought of producing against him.

11. If the question be now asked, which of the countries of the world gains most by foreign commerce, the following will be the answer.

If by gain be meant advantage, in the most enlarged sense, that country will generally gain the most which stands most in need of foreign commodities.

But if by gain be meant saving of labour and capital in obtaining the commodities which the country desires to have, whatever they may be ; the country



will gain, not in proportion to its own need of foreign articles, but to the need which foreigners have of the articles which itself produces.

Let us take, as an illustration of our meaning, the case of France and England. Those two nations, in consequence of the restrictions with which they have loaded their commercial intercourse, carry on so little trade with each other; as may almost, regard being had to the wealth and population of the two countries, be called none at all. If these fetters were at once taken off, which of the two countries would be the greatest gainer? England without doubt. There would instantly arise in France an immense demand for the cottons, woollens, and iron of England; while wines, brandies, and silks, the staple articles of France, are less likely to come into general demand here, nor would the consumption of such productions, it is probable, be so rapidly increased by the fall of price. The fall would probably be very great before France could obtain a vent in England for so much of her exports as would suffice to pay for the probable amount of her imports. There would be a considerable flow of the precious metals out of France into England. The English consumer of French wine would not merely save the amount of the duty which that wine now pays, but would find the wine itself falling in prime cost, while his means of purchasing it would be increased by the augmentation of his own money income. The French consumer of English cottons, on the contrary, would not long continue to be able to purchase them at the price they now sell for in England. He would gain less, as the English would gain more, than might appear from a mere comparison between the present prices of commodities in the two countries.

Various consequences would flow from opening the

trade between France and England, which are not expected, either by the friends or by the opponents of the present restrictive system. The wine-growers of France, who imagine that free trade would relieve their distress by raising the price of their wine, might not improbably find that price actually lowered: On the other hand, our silk manufacturers would be surprised if they were told that the free admission of our cottons and hardware into the French market, would endanger *their* branch of manufacture: yet such might very possibly be the effect. France, it is likely, could most advantageously pay us in silks for a portion of the large amount of cottons and hardware which we should sell to her; and though our silk manufacturers may now be able to compete advantageously, in some branches of the manufacture, with their French rivals, it by no means follows that they could do so when the efflux of money from France, and its influx into England, had lowered the price of silk goods in the French market, and increased all the expenses of production here.

On the whole, England probably, of all the countries of Europe, draws to herself the largest share of the gains of international commerce: because her exportable articles are in universal demand, and are of such a kind that the demand increases rapidly as the price falls. Countries which export food, have the former advantage, but not the latter. But our own colonies, and the countries which supply us with the materials of our manufactures, maintain a hard struggle with us for an equal share of the advantages of their trade; for *their* exports are also of a kind for which there exists a most extensive demand here, and a demand capable of almost indefinite extension by a fall of price. Contrary, therefore, to common opinion, it is probable that our trade with the colonies, and with the

countries which send us the raw materials of our national industry, is not more but less advantageous to us, in proportion to its extent, than our trade with the continent of Europe. We mean in respect to the mere amount of the return to the labour and capital of the country; considered abstractedly from the usefulness or agreeableness of the particular articles on which the receivers may choose to expend it.

## ESSAY II.

### OF THE INFLUENCE OF CONSUMPTION ON PRODUCTION.

BEFORE the appearance of those great writers whose discoveries have given to political economy its present comparatively scientific character, the ideas universally entertained both by theorists and by practical men, on the causes of national wealth, were grounded upon certain general views, which almost all who have given any considerable attention to the subject now justly hold to be completely erroneous.

Among the mistakes which were most pernicious in their direct consequences, and tended in the greatest degree to prevent a just conception of the objects of the science, or of the test to be applied to the solution of the questions which it presents, was the immense importance attached to consumption. The great end of legislation in matters of national wealth, according to the prevalent opinion, was to create consumers. A great and rapid consumption was what the producers, of all classes and denominations, wanted, to enrich themselves and the country. This object, under the varying names of an extensive demand, a brisk circulation, a great expenditure of money, and sometimes *totidem verbis* a large consumption, was conceived to be the great condition of prosperity.

It is not necessary, in the present state of the science, to contest this doctrine in the most flagrantly absurd of its forms or of its applications. The utility of a large government expenditure, for the purpose of

encouraging industry, is no longer maintained. Taxes are not now esteemed to be "like the dews of heaven, which return again in prolific showers." It is no longer supposed that you benefit the producer by taking his money, provided you give it to him again in exchange for his goods. There is nothing which impresses a person of reflection with a stronger sense of the shallowness of the political reasonings of the last two centuries, than the general reception so long given to a doctrine which, if it proves anything, proves that the more you take from the pockets of the people to spend on your own pleasures, the richer they grow; that the man who steals money out of a shop, provided he expends it all again at the same shop, is a benefactor to the tradesman whom he robs, and that the same operation, repeated sufficiently often, would make the tradesman's fortune.

In opposition to these palpable absurdities, it was triumphantly established by political economists, that consumption never needs encouragement. All which is produced is already consumed, either for the purpose of reproduction or of enjoyment. The person who saves his income is no less a consumer than he who spends it: he consumes it in a different way; it supplies food and clothing to be consumed, tools and materials to be used, by productive labourers. Consumption, therefore, already takes place to the greatest extent which the amount of production admits of; but, of the two kinds of consumption, reproductive and unproductive, the former alone adds to the national wealth, the latter impairs it. What is consumed for mere enjoyment, is gone; what is consumed for reproduction, leaves commodities of equal value, commonly with the addition of a profit. The usual effects of the attempts of government to encourage

consumption, is merely to prevent saving; that is, to promote unproductive consumption at the expense of reproductive, and diminish the national wealth by the very means which were intended to increase it.

What a country wants to make it richer, is never consumption, but production. Where there is the latter, we may be sure there is no want of the former. To produce, implies that the producer desires to consume; why else should he give himself useless labour? He may not wish to consume what he himself produces, but his motive for producing and selling is the desire to buy. Therefore, if the producers generally produce and sell more and more, they certainly also buy more and more. Each may not want more of what he himself produces, but each wants more of what some other produces; and, by producing what the other wants, hopes to obtain what the other produces. There will never, therefore, be a greater quantity produced, of commodities in general, than there are consumers for. But there may be, and always are, abundance of persons who have the inclination to become consumers of some commodity, but are unable to satisfy their wish, because they have not the means of producing either that, or anything to give in exchange for it. The legislator, therefore, needs not give himself any concern about consumption. There will always be consumption for everything which can be produced, until the wants of all who possess the means of producing are completely satisfied, and then production will not increase any farther. The legislator has to look solely to two points: that no obstacle shall exist to prevent those who have the means of producing, from employing those means as they find most for their interest; and that those who have not at present the means of producing, to the extent of their desire to consume,

shall have every facility afforded to their acquiring the means, that, becoming producers, they may be enabled to consume.

These general principles are now well understood by almost all who profess to have studied the subject, and are disputed by few except those who ostentatiously proclaim their contempt for such studies. We touch upon the question, not in the hope of rendering these fundamental truths clearer than they already are, but to perform a task, so useful and needful, that it is to be wished it were oftener deemed part of the business of those who direct their assaults against ancient prejudices,—that of seeing that no scattered particles of important truth are buried and lost in the ruins of exploded error. Every prejudice, which has long and extensively prevailed among the educated and intelligent, must certainly be borne out by some strong appearance of evidence; and when it is found that the evidence does not prove the received conclusion, it is of the highest importance to see what it does prove. If this be thought not worth inquiring into, an error conformable to appearances is often merely exchanged for an error contrary to appearances; while, even if the result be truth, it is paradoxical truth, and will have difficulty in obtaining credence while the false appearances remain.

Let us therefore inquire into the nature of the appearances, which gave rise to the belief that a great demand, a brisk circulation, a rapid consumption (three equivalent expressions), are a cause of national prosperity.

If every man produced for himself, or with his capital employed others to produce, everything which he required, customers and their wants would be a matter

of profound indifference to him. He would be rich, if he had produced and stored up a large supply of the articles which he was likely to require ; and poor, if he had stored up none at all, or not enough to last until he could produce more.

The case, however, is different after the separation of employments. In civilized society, a single producer confines himself to the production of one commodity, or a small number of commodities ; and his influence depends, not solely upon the quantity of his commodity which he has produced and laid in store, but upon his success in finding purchasers for that commodity.

It is true, therefore, of every particular producer or dealer, that a great demand, a brisk circulation, a rapid consumption, of the commodities which he sells at his shop or produces in his manufactory, is important to him. The dealer whose shop is crowded with customers, who can dispose of a product almost the very moment it is completed, makes large profits, while his next neighbour, with an equal capital but fewer customers, gains comparatively little.

It was natural that, in this case, as in a hundred others, the analogy of an individual should be unduly applied to a nation : as it has been concluded that a nation generally gains in wealth by the conquest of a province, because an individual frequently does so by the acquisition of an estate ; and as, because an individual estimates his riches by the quantity of money which he can command, it was long deemed an excellent contrivance for enriching a country, to heap up artificially the greatest possible quantity of the precious metals within it.

Let us examine, then, more closely than has usually been done, the case from which the misleading analogy is drawn. Let us ascertain to what extent the two cases



actually resemble ; what is the explanation of the false appearance, and the real nature of the phenomenon which, being seen indistinctly, has led to a false conclusion.

We shall propose for examination a very simple case, but the explanation of which will suffice to clear up all other cases which fall within the same principle. Suppose that a number of foreigners with large incomes arrive in a country, and there expend those incomes : will this operation be beneficial, as respects the national wealth, to the country which receives these immigrants ? Yes, say many political economists, if they save any part of their incomes, and employ them reproductively ; because then an addition is made to the national capital, and the produce is a clear increase of the national wealth. But if the foreigner expends all his income unproductively, it is no benefit to the country, say they, and for the following reason.

If the foreigner had his income remitted to him in bread and beef, coats and shoes, and all the other articles which he was desirous to consume, it would not be pretended that his eating, drinking, and wearing them, on our shores rather than on his own, could be of any advantage to us in point of wealth. Now, the case is not different if his income is remitted to him in some one commodity, as, for instance, in money. For whatever takes place afterwards, with a view to the supply of his wants, is a mere exchange of equivalents ; and it is impossible that a person should ever be enriched by merely receiving an equal value in exchange for an equal value.

When it is said that the purchases of the foreign consumer give employment to capital which would otherwise yield no profit to its owner, the same poli-

tical economists reject this proposition as involving the fallacy of what has been called a "general glut." They say, that the capital, which any person has chosen to produce and to accumulate, can always find employment, since the fact that he has accumulated it proves that he had an unsatisfied desire; and if he cannot find anything to produce for the wants of other consumers, he can for his own.

It is impossible to contest these propositions as thus stated. But there is one consideration which clearly shows, that there is something more in the matter than is here taken into the account; and this is, that the above reasoning tends distinctly to prove, that it does a tradesman no good to go into his shop and buy his goods. How can he be enriched? it might be asked. He merely receives a certain value in money, for an equivalent value in goods. Neither does this give employment to his capital; for there never exists more capital than can find employment, and if one person does not buy his goods another will; or if nobody does, there is over-production in that business, he can remove his capital, and find employment for it in another trade.

Every one sees the fallacy of this reasoning as applied to individual producers. Every one knows that as applied to them it has not even the semblance of plausibility; that the wealth of a producer does in a great measure depend upon the number of his customers, and that in general every additional purchaser does really add to his profits. If the reasoning, which would be so absurd if applied to individuals, be applicable to nations, the principle on which it rests must require much explanation and elucidation.

Let us endeavour to analyse with precision the

real nature of the advantage which a producer derives from an addition to the number of his customers.

For this purpose, it is necessary that we should premise a single observation on the meaning of the word capital. It is usually defined, the food, clothing, and other articles set aside for the consumption of the labourer, together with the materials and instruments of production. This definition appears to us peculiarly liable to misapprehension ; and much vagueness and some narrow views have, we conceive, occasionally resulted from its being interpreted with too mechanical an adherence to the literal meaning of the words.

The capital, whether of an individual or of a nation, consists, we apprehend, of all matters possessing exchangeable value, which the individual or the nation has in his or in its possession for the purpose of reproduction, and not for the purpose of the owner's unproductive enjoyment. All unsold goods, therefore, constitute a part of the national capital, and of the capital of the producer or dealer to whom they belong. It is true that tools, materials, and the articles on which the labourer is supported, are the only articles which are directly subservient to production : and if I have a capital consisting of money, or of goods in a warehouse, I can only employ them as means of production in so far as they are capable of being exchanged for the articles which conduce directly to that end. But the food, machinery, &c., which will ultimately be purchased with the goods in my warehouse, may at this moment not be in the country, may not be even in existence. If, after having sold the goods, I hire labourers with the money, and set them to work, I am surely employing capital, though

the corn, which in the form of bread those labourers may buy with the money, may be now in warehouse at Dantzic, or perhaps not yet above ground.

Whatever, therefore, is destined to be employed reproductively, either in its existing shape, or indirectly by a previous (or even subsequent) exchange, is capital. Suppose that I have laid out all the money I possess in wages and tools, and that the article I produce is just completed: in the interval which elapses before I can sell the article, realize the proceeds, and lay them out again in wages and tools, will it be said that I have no capital? Certainly not: I have the same capital as before, perhaps a greater, but it is locked up, as the expression is, and not disposable.

When we have thus seen accurately what really constitutes capital, it becomes obvious, that of the capital of a country, there is at all times a very large proportion lying idle. The annual produce of a country is never anything approaching in magnitude to what it might be if all the resources devoted to reproduction, if all the capital, in short, of the country, were in full employment.

If every commodity on an average remained unsold for a length of time equal to that required for its production, it is obvious that, at any one time, no more than half the productive capital of the country would be really performing the functions of capital. The two halves would relieve one another, like the semichori in a Greek tragedy; or rather the half which was in employment would be a fluctuating portion, composed of varying parts; but the result would be, that each producer would be able to produce every year only half as large a supply of commodities, as he could produce if he were sure of

selling them the moment the production was completed.

This, or something like it, is however the habitual state, at every instant, of a very large proportion of all the capitalists in the world.

The number of producers, or dealers, who turn over their capital, as the expression is, in the shortest possible time, is very small. There are few who have so rapid a sale for their wares, that all the goods which their own capital, or the capital which they can borrow, enables them to supply, are carried off as fast as they can be supplied. The majority have not an *extent of business*, at all adequate to the amount of the capital they dispose of. It is true that, in the communities in which industry and commerce are practised with greatest success, the contrivances of banking enable the possessor of a larger capital than he can employ in his own business, to employ it productively and derive a revenue from it notwithstanding. Yet even then, there is, of necessity, a great quantity of capital which remains fixed in the shape of implements, machinery, buildings, &c., whether it is only half employed, or in complete employment: and every dealer keeps a stock in trade, to be ready for a possible sudden demand, though he probably may not be able to dispose of it for an indefinite period.

This perpetual non-employment of a large proportion of capital, is the price we pay for the division of labour. The purchase is worth what it costs; but the price is considerable.

Of the importance of the fact which has just been noticed there are three signal proofs. One is, the large sum often given for the goodwill of a particular business. Another is, the large rent which is paid

for shops in certain situations, near a great thoroughfare for example, which have no advantage except that the occupier may expect a larger body of customers, and be enabled to turn over his capital more quickly. Another is, that in many trades, there are some dealers who sell articles of an equal quality at a lower price than other dealers. Of course, this is not a voluntary sacrifice of profits: they expect by the consequent overflow of customers to turn over their capital more quickly, and to be gainers by keeping the whole of their capital in more constant employment, though on any given operation their gains are less.

The reasoning cited in the earlier part of this paper, to show the uselessness of a mere purchaser or customer, for enriching a nation or an individual, applies only to the case of dealers who have already as much business as their capital admits of, and as rapid a sale for their commodities as is possible. To such dealers an additional purchaser is really of no use; for, if they are sure of selling all their commodities the moment those commodities are on sale, it is of no consequence whether they sell them to one person or to another. But it is questionable whether there be any dealers in whose case this hypothesis is exactly verified; and to the great majority it is not applicable at all. An additional customer, to most dealers, is equivalent to an increase of their productive capital. He enables them to convert a portion of their capital which was lying idle (and which could never have become productive in their hands until a customer was found) into wages and instruments of production; and if we suppose that the commodity, unless bought by him, would not have found a purchaser for a year after, then all which a capital of that value can enable men to produce during

a year, is clear gain—gain to the dealer, or producer, and to the labourers whom he will employ, and thus (if no one sustains any corresponding loss) gain to the nation. The aggregate produce of the country for the succeeding year is, therefore, increased; not by the mere exchange, but by calling into activity a portion of the national capital, which, had it not been for the exchange, would have remained for some time longer unemployed.

Thus there are actually at all times producers and dealers, of all, or nearly all classes, whose capital is lying partially idle, because they have not found the means of fulfilling the condition which the division of labour renders indispensable to the full employment of capital,—viz., that of exchanging their products with each other. If these persons could find one another out, they could mutually relieve each other from this disadvantage. Any two shopkeepers, in insufficient employment, who agreed to deal at each other's shops so long as they could there purchase articles of as good a quality as elsewhere, and at as low a price, would render the nation a service. It may be said that they must previously have dealt, to the same amount, with some other dealers; but this is erroneous, since they could only have obtained the means of purchasing by being previously enabled to sell. By their compact, each would gain a customer, who would call his capital into fuller employment; each therefore would obtain an increased produce; and they would thus be enabled to become better customers to each other than they could be to third parties.

It is obvious that every dealer who has not business sufficient fully to employ his capital (which is the case with all dealers when they commence business, and with many to the end of their lives), is in this predicament

simply for want of some one with whom to exchange his commodities ; and as there are such persons to about the same degree probably in all trades, it is evident that if these persons sought one another out, they have their remedy in their own hands, and by each other's assistance might bring their capital into more full employment.

We are now qualified to define the exact nature of the benefit which a producer or dealer derives from the acquisition of a new customer. It is as follows:—

1. If any part of his own capital was locked up in the form of unsold goods, producing (for a longer period or a shorter) nothing at all ; a portion of this is called into greater activity, and becomes more constantly productive. But to this we must add some further advantages.

2. If the additional demand exceeds what can be supplied by setting at liberty the capital which exists in the state of unsold goods ; and if the dealer has additional resources, which were productively invested (in the public funds, for instance), but not in his own trade ; he is enabled to obtain, on a portion of these, not mere interest, but profit, and so to gain that difference between the rate of profit and the rate of interest, which may be considered as “ wages of superintendence.”

3. If all the dealer's capital is employed in his own trade, and no part of it locked up as unsold goods, the new demand affords him additional encouragement to save, by enabling his savings to yield him not merely interest, but profit ; and if he does not choose to save (or until he shall have saved), it enables him to carry on an additional business with borrowed capital, and so gain the difference between interest and profit, or, in other words, to receive wages of superintendence on a larger amount of capital.



This, it will be found, is a complete account of all the gains which a dealer in any commodity can derive from an accession to the number of those who deal with him: and it is evident to every one, that these advantages are real and important, and that they are the cause which induces a dealer of any kind to desire an increase of his business.

It follows from these premises, that the arrival of a new unproductive consumer (living on his own means) in any place, be that place a village, a town, or an entire country, is beneficial to that place, if it causes to any of the dealers of the place any of the advantages above enumerated, without withdrawing an equal advantage of the same kind from any other dealer of the same place.

This accordingly is the test by which we must try all such questions, and by which the propriety of the analogical argument, from dealing with a tradesman to dealing with a nation, must be decided.

Let us take, for instance, as our example, Paris, which is much frequented by strangers from various parts of the world, who, as sojourners there, live unproductively upon their means. Let us consider whether the presence of these persons is beneficial, in an *industrial* point of view, to Paris.

We exclude from the consideration that portion of the strangers' incomes which they pay to natives as direct remuneration for service, or labour of any description. This is obviously beneficial to the country. An increase in the funds expended in employing labour, whether that labour be productive or unproductive, tends equally to raise wages. The condition of the whole labouring class is, so far, benefited. It is true that the labourers thus employed by sojourners are probably, in part or altogether, withdrawn from

productive employment. But this is far from being an evil; for either the situation of the labouring classes is improved, which is far more than an equivalent for a diminution in mere production, or the rise of wages acts as a stimulus to population, and then the number of productive labourers becomes as great as before.

To this we may add, that what the sojourners pay as wages of labour or service (whether constant or casual), though expended unproductively by the first possessor, may, when it passes into the hands of the receivers, be by them saved, and invested in a productive employment. If so, a direct addition is made to the national capital.

All this is obvious, and is sufficiently allowed by political economists; who have invariably set apart the gains of all persons coming under the class of domestic servants, as real advantages arising to a place from the residence there of an increased number of unproductive consumers.

We have only to examine whether the purchases of commodities by these unproductive consumers, confer the same kind of benefit upon the village, town, or nation, which is bestowed upon a particular tradesman by dealing at his shop.

Now it is obvious that the sojourners, on their arrival, confer the benefit in question upon some dealers, who did not enjoy it before. They purchase their food, and many other articles, from the dealers in the place. They, therefore, call the capital of some dealers, which was locked up in unsold goods, into more active employment. They encourage them to save, and enable them to receive wages of superintendence upon a larger amount of capital. These effects being undeniable, the question is, whether the presence of the sojourners

deprives any others of the Paris dealers of a similar advantage.

It will be seen that it does ; and nothing will then remain but a comparison of the amounts.

It is obvious to all who reflect (and was shown in the paper which precedes this) that the remittances to persons who expend their incomes in foreign countries are, after a slight passage of the precious metals, defrayed in commodities : and that the result commonly is, an increase of exports and a diminution of imports, until the latter fall short of the former by the amount of the remittances.

The arrival, therefore, of the strangers (say from England), while it creates at Paris a market for commodities equivalent in value to their funds, displaces in the market other commodities to an equal value. To the extent of the increase of exports from England into France in the way of remittance, it introduces additional commodities which, by their cheapness, displace others formerly produced in that country. To the extent of the diminution of imports into England from France, commodities which existed or which were habitually produced in that country, are deprived of a market, or can only find one at a price not sufficient to defray the cost.

It must, therefore, be a matter of mere accident, if by arriving in a place, the new unproductive consumer causes any net advantage to its industry, of the kind which we are now examining. Not to mention that this, like any other change in the channels of trade, may render useless a portion of fixed capital, and so far injure the national wealth.

A distinction, however, must here be made.

The place to which the new unproductive con-

sumers have come, may be a town or village, as well as a country. If a town or village, it may either be or not be a place having an export trade.

If the place had no previous trade except with the immediate neighbourhood, there are no exports and imports, by the new arrangement of which, the remittance can be made. There is no capital, formerly employed in manufacturing for the foreign market, which is now brought into less full employment.

Yet the remittance evidently is still made in commodities, but in this case without displacing any which were produced before. To show this, it is necessary to make the following remarks.

The reason why towns exist, is that *ceteris paribus* it is convenient, in order to save cost of carriage, that the production of commodities should take place as far as practicable in the immediate vicinity of the consumer. Capital finds its way so easily from town to country and from country to town, that the amount of capital in the town will be regulated wholly by the amount which can be employed there more conveniently than elsewhere. Consequently the capital of a place will be such as is sufficient

1st. To produce all commodities which from local circumstances can be produced there at less cost than elsewhere: and if this be the case to any great extent, it will be an exporting town. When we say *produced*, we may add, or *stored*.

2nd. To produce and retail the commodities which are consumed by the inhabitants of the town, and the place of whose production is in other respects a matter of indifference. To the inhabitants of the town must be added such dwellers in the adjoining country, as are nearer to that place than to any other equally well furnished market.

Now, if new unproductive consumers resort to the place, it is clear that for the latter of these two purposes, more capital will be required than before. Consequently, if less is not required for the former purpose, more capital will establish itself at the place.

Until this additional capital has arrived, the producers and dealers already on the spot will enjoy great advantages. Every particle of their own capital will be called into the most active employment. What their capital does not enable them to supply, will be got from others at a distance, who cannot supply it on such favourable terms; consequently they will be in the predicament of possessing a partial monopoly—receiving for everything a price regulated by a higher cost of production than they are compelled to pay. They also, being in possession of the market, will be enabled to make a large portion of the new capital pass through their hands, and thus to earn wages of superintendence upon it.

If, indeed, the place from whence the strangers came, previously traded with that where they have taken up their abode, the effect of their arrival is, that the exports of the town will diminish, and that it will be supplied from abroad with something which it previously produced at home. In this way an amount of capital will be set free equal to that required, and there will be no increase on the whole. The removal of the Court from London to Birmingham would not necessarily, though it would probably,\* increase the amount

\* Probably; because most articles of an ornamental description being still required from the same makers, these makers, with their capital, would probably follow their customers. Besides, from place to place within the same country, most persons will rather change their habitation than their employment. But the moving on this score would be reciprocal.

of capital in the latter place. The afflux of money to Birmingham, and its efflux from London, would render it cheaper to make some articles in London for Birmingham consumption; and to make others in London for home consumption, which were formerly brought from Birmingham.

But instead of Birmingham, an exporting town, suppose a village, or a town which only produced and retailed for itself and its immediate vicinity. The remittances must come thither in the shape of money; and though the money would not remain, but would be sent away in exchange for commodities, it would, however, first pass through the hands of the producers and dealers in the place, and would by them be exported in exchange for the articles which they require—viz. the materials, tools, and subsistence necessary for the increased production now required of them, and articles of foreign luxury for their own increased unproductive consumption. These articles would not displace any formerly made in the place, but on the contrary, would forward the production of more.

Hence we may consider the following propositions as established:

1. The expenditure of absentees (the case of domestic servants excepted), is not necessarily any loss to the *country* which they leave, or gain to the *country* which they resort to (save in the manner shown in Essay I.): for almost every *country* habitually exports and imports to a much greater value than the incomes of its absentees, or of the foreign sojourners within it.

2. But sojourners often do much good to the *town* or village which they resort to, and absentees harm to that which they leave. The capital of the petty tradesman in a small town near an absentee's estate, is deprived of the market for which it is conveniently

situated, and must resort to another to which other capitals lie nearer, and where it is consequently outbid and gains less; obtaining only the same price, with greater expenses. But this evil would be equally occasioned, if, instead of going abroad, the absentee had removed to his own capital city.

If the tradesman could, in the latter case, remove to the metropolis, or in the former, employ himself in producing increased exports, or in producing for home consumption articles now no longer imported, each in the place most convenient for that operation; he would not be a loser, though the place which he was obliged to leave might be said to lose.

Paris undoubtedly gains much by the sojourn of foreigners, while the counteracting loss by diminution of exports from France is suffered by the great trading and manufacturing towns, Rouen, Bordeaux, Lyons, &c., which also suffer the principal part of the loss by importation of articles previously produced at home. The capital thus set free, finds its most convenient seat to be Paris, since the business to which it must turn is the production of articles to be unproductively consumed by the sojourners.

The great trading towns of France would undoubtedly be more flourishing, if France were not frequented by foreigners.

Rome and Naples are perhaps purely benefited by the foreigners sojourning there: for they have so little external trade, that their case may resemble that of the village in our hypothesis.

Absenteeism, therefore, (except as shown in the first Essay) is a local, not a national evil; and the resort of foreigners, in so far as they purchase for unproductive consumption, is not, in any commercial country, a national, though it may be a local good.

From the considerations which we have now adduced, it is obvious what is meant by such phrases as a *brisk demand*, and a rapid circulation. There is a brisk demand and a rapid circulation, when goods, generally speaking, are sold as fast as they can be produced. There is slackness, on the contrary, and stagnation, when goods, which have been produced, remain for a long time unsold. In the former case, the capital which has been locked up in production is disengaged as soon as the production is completed; and can be immediately employed in further production. In the latter case, a large portion of the productive capital of the country is lying in temporary inactivity.

From what has been already said, it is obvious that periods of "brisk demand" are also the periods of greatest production: the national capital is never called into full employment but at those periods. This, however, is no reason for desiring such times; it is not desirable that the whole capital of the country should be in full employment. For, the calculations of producers and traders being of necessity imperfect, there are always some commodities which are more or less in excess, as there are always some which are in deficiency. If, therefore, the whole truth were known, there would always be some classes of producers contracting, not extending, their operations. If *all* are endeavouring to extend them, it is a certain proof that some general delusion is afloat. The commonest cause of such delusion is some general, or very extensive, rise of prices (whether caused by speculation or by the currency) which persuades all dealers that they are growing rich. And hence, an increase of production really takes place during the progress of depreciation, as long as the existence of depreciation



is not suspected ; and it is this which gives to the fallacies of the currency school, principally represented by Mr. Attwood, all the little plausibility they possess. But when the delusion vanishes and the truth is disclosed, those whose commodities are relatively in excess must diminish their production or be ruined : and if during the high prices they have built mills and erected machinery, they will be likely to repent at leisure.

In the present state of the commercial world, mercantile transactions being carried on upon an immense scale, but the remote causes of fluctuations in prices being very little understood, so that unreasonable hopes and unreasonable fears alternately rule with tyrannical sway over the minds of a majority of the mercantile public ; general eagerness to buy and general reluctance to buy, succeed one another in a manner more or less marked, at brief intervals. Except during short periods of transition, there is almost always either great briskness of business or great stagnation ; either the principal producers of almost all the leading articles of industry have as many orders as they can possibly execute, or the dealers in almost all commodities have their warehouses full of unsold goods.

In this last case, it is commonly said that there is a general superabundance ; and as those economists who have contested the possibility of general superabundance, would none of them deny the possibility or even the frequent occurrence of the phenomenon which we have just noticed, it would seem incumbent on them to show, that the expression to which they object is not applicable to a state of things in which all or most commodities remain unsold, in the same sense in which there is said to be a superabundance of any one commodity when it remains in the warehouses of dealers for want of a market.

This is merely a question of naming, but an important one, as it seems to us that much apparent difference of opinion has been produced by a mere difference in the mode of describing the same facts, and that persons who at bottom were perfectly agreed, have considered each other as guilty of gross error, and sometimes even misrepresentation, on this subject.

In order to afford the explanations, with which it is necessary to take the doctrine of the impossibility of an excess of all commodities, we must advert for a moment to the argument by which this impossibility is commonly maintained.

There can never, it is said, be a want of buyers for all commodities; because whoever offers a commodity for sale, desires to obtain a commodity in exchange for it, and is therefore a buyer by the mere fact of his being a seller. The sellers and the buyers, for all commodities taken together, must, by the metaphysical necessity of the case, be an exact equipoise to each other; and if there be more sellers than buyers of one thing, there must be more buyers than sellers for another.

This argument is evidently founded on the supposition of a state of barter; and, on that supposition, it is perfectly incontestable. When two persons perform an act of barter, each of them is at once a seller and a buyer. He cannot sell without buying. Unless he chooses to buy some other person's commodity, he does not sell his own.

If, however, we suppose that money is used, these propositions cease to be exactly true. It must be admitted that no person desires money for its own sake (unless some very rare cases of misers be an exception), and that he who sells his commodity, receiving money in exchange, does so with the inten-

tion of buying with that same money some other commodity. Interchange by means of money is therefore, as has been often observed, ultimately nothing but barter. But there is this difference—that in the case of barter, the selling and the buying are simultaneously confounded in one operation; you sell what you have, and buy what you want, by one indivisible act, and you cannot do the one without doing the other. Now the effect of the employment of money, and even the utility of it, is, that it enables this one act of interchange to be divided into two separate acts or operations; one of which may be performed now, and the other a year hence, or whenever it shall be most convenient. Although he who sells, really sells only to buy, he needs not buy at the same moment when he sells; and he does not therefore necessarily add to the *immediate* demand for one commodity when he adds to the supply of another. The buying and selling being now separated, it may very well occur, that there may be, at some given time, a very general inclination to sell with as little delay as possible, accompanied with an equally general inclination to defer all purchases as long as possible. This is always actually the case, in those periods which are described as periods of general excess. And no one, after sufficient explanation, will contest the possibility of general excess, in this sense of the word. The state of things which we have just described, and which is of no uncommon occurrence, amounts to it.

For when there is a general anxiety to sell, and a general disinclination to buy, commodities of all kinds remain for a long time unsold, and those which find an immediate market, do so at a very low price. If it be said that when all commodities fall in price, the fall is of no consequence, since mere money price is not

material while the relative value of all commodities remains the same, we answer that this would be true if the low prices were to last for ever. But as it is certain that prices will rise again sooner or later, the person who is obliged by necessity to sell his commodity at a low money price is really a sufferer, the money he receives sinking shortly to its ordinary value. Every person, therefore, delays selling if he can, keeping his capital unproductive in the meantime, and sustaining the consequent loss of interest. There is stagnation to those who are not obliged to sell, and distress to those who are.

It is true that this state can be only temporary, and must even be succeeded by a reaction of corresponding violence, since those who have sold without buying will certainly buy at last, and there will then be more buyers than sellers. But although the general over-supply is of necessity only temporary, this is no more than may be said of every partial over-supply. An overstocked state of the market is always temporary, and is generally followed by a more than common briskness of demand.

In order to render the argument for the impossibility of an excess of all commodities applicable to the case in which a circulating medium is employed, money must itself be considered as a commodity. It must, undoubtedly, be admitted that there cannot be an excess of all other commodities, and an excess of money at the same time.

But those who have, at periods such as we have described, affirmed that there was an excess of all commodities, never pretended that money was one of these commodities; they held that there was not an excess, but a deficiency of the circulating medium. What they called a general superabundance, was

not a superabundance of commodities relatively to commodities, but a superabundance of all commodities relatively to money. What it amounted to was, that persons in general, at that particular time, from a general expectation of being called upon to meet sudden demands, liked better to possess money than any other commodity. Money, consequently, was in request, and all other commodities were in comparative disrepute. In extreme cases, money is collected in masses, and hoarded; in the milder cases people merely defer parting with their money, or coming under any new engagements to part with it. But the result is, that all commodities fall in price, or become unsaleable. When this happens to one single commodity, there is said to be a superabundance of that commodity; and if that be a proper expression, there would seem to be in the nature of the case no particular impropriety in saying that there is a superabundance of all or most commodities, when all or most of them are in this same predicament.

It is, however, of the utmost importance to observe that excess of all commodities, in the only sense in which it is possible, means only a temporary fall in their value relatively to money. To suppose that the markets for all commodities could, in any other sense than this, be overstocked, involves the absurdity that commodities may fall in value relatively to themselves; or that, of two commodities, each can fall relatively to the other, A becoming equivalent to  $B - x$ , and B to  $A - x$ , at the same time. And it is, perhaps, a sufficient reason for not using phrases of this description, that they suggest the idea of excessive production. A want of market for one article may arise from excessive production of that article; but when commodities in general become unsaleable, it is from

a very different cause ; there cannot be excessive production of commodities in general.

The argument against the possibility of general over-production is quite conclusive, so far as it applies to the doctrine that a country may accumulate capital too fast ; that produce in general may, by increasing faster than the demand for it, reduce all producers to distress. This proposition, strange to say, was almost a received doctrine as lately as thirty years ago ; and the merit of those who have exploded it is much greater than might be inferred from the extreme obviousness of its absurdity when it is stated in its native simplicity. It is true that if all the wants of all the inhabitants of a country were fully satisfied, no further capital could find useful employment ; but, in that case, none would be accumulated. So long as there remain any persons not possessed, we do not say of subsistence, but of the most refined luxuries, and who would work to possess them, there is employment for capital ; and if the commodities which these persons want are not produced and placed at their disposal, it can only be because capital does not exist, disposable for the purpose of employing, if not any other labourers, those very labourers themselves, in producing the articles for their own consumption. Nothing can be more chimerical than the fear that the accumulation of capital should produce poverty and not wealth, or that it will ever take place too fast for its own end. Nothing is more true than that it is produce which constitutes the market for produce, and that every increase of production, if distributed without miscalculation among all kinds of produce in the proportion which private interest would dictate, creates, or rather constitutes, its own demand.

This is the truth which the deniers of general over-

production have seized and enforced ; nor is it pretended that anything has been added to it, or subtracted from it, in the present disquisition. But it is thought that those who receive the doctrine accompanied with the explanations which we have given, will understand, more clearly than before, what is, and what is not, implied in it ; and will see that, when properly understood, it in no way contradicts those obvious facts which are universally known and admitted to be not only of possible, but of actual and even frequent occurrence. The doctrine in question only appears a paradox, because it has usually been so expressed as apparently to contradict these well-known facts ; which, however, were equally well known to the authors of the doctrine, who, therefore, can only have adopted from inadvertence any form of expression which could to a candid person appear inconsistent with it. The essentials of the doctrine are preserved when it is allowed that there cannot be permanent excess of production, or of accumulation ; though it be at the same time admitted, that as there may be a temporary excess of any one article considered separately, so may there of commodities generally, not in consequence of over-production, but of a want of commercial confidence.

## ESSAY III.

### ON THE WORDS PRODUCTIVE AND UNPRODUCTIVE.

It would probably be difficult to point out any two words, respecting the proper use of which political economists have been more divided, than they have been concerning the two words *productive* and *unproductive*; whether considered as applied to *labour*, to *consumption*, or to *expenditure*.

Although this is a question solely of nomenclature, it is one of sufficient importance to be worth another attempt to settle it satisfactorily. For, although writers on political economy have not agreed in the ideas which they were accustomed to annex to these terms, the terms have generally been employed to denote ideas of very great importance, and it is impossible that some vagueness should not have been thrown upon the ideas themselves by looseness in the use of the words by which they are habitually designated. Further, so long as the pedantic objection to the introduction of new technical terms continues, accurate thinkers on moral and political subjects are limited to a very scanty vocabulary for the expression of their ideas. It therefore is of great importance that the words with which mankind are familiar, should be turned to the greatest possible advantage as instruments of thought; that one word should not be used as the sign of an idea which is already sufficiently expressed by another word; and that words which are required to denote ideas of great



importance, should not be usurped for the expression of such as are comparatively insignificant.

The phrases *productive labour*, and *productive consumption*, have been employed by some writers on political economy with very great latitude. They have considered, and classed, as productive labour and productive consumption, all labour which serves any *useful* purpose—all consumption which is not *waste*. Mr. M'Culloch has asserted, *totidem verbis*, that the labour of Madame Pasta was as well entitled to be called productive labour as that of a cotton spinner.

Employed in this sense, the words *productive* and *unproductive* are superfluous, since the words *useful* and *agreeable* on the one hand, *useless* and *worthless* on the other, are quite sufficient to express all the ideas to which the words *productive* and *unproductive* are here applied.

This use of the terms, therefore, is subversive of the ends of language.

Those writers who have employed the words in a more limited sense, have usually understood by productive or unproductive labour, labour which is productive of wealth, or unproductive of wealth. But what is wealth? And here the words productive and unproductive have been affected with additional ambiguities, corresponding to the different extension which different writers have given to the term wealth.

Some have given the name of wealth to *all things* which tend to the use or enjoyment of mankind, and which possess exchangeable value. This last clause is added to exclude air, the light of the sun, and any other things which can be obtained in unlimited quantity without labour or sacrifice; together with all such things as, though produced by labour, are not held in

sufficient general estimation to command any price in the market.

But when this definition came to be explained, many persons were disposed to interpret "*all things* which tend to the use or enjoyment of man," as implying only all *material* things. *Immaterial* products they refused to consider as wealth; and labour or expenditure which yielded nothing but immaterial products, they characterised as unproductive labour and unproductive expenditure.

To this it was, or might have been, answered, that according to this classification, a carpenter's labour at his trade is productive labour, but the same individual's labour in learning his trade was unproductive labour. Yet it is obvious that, on both occasions, his labour tended exclusively to what is allowed to be production: the one was equally indispensable with the other, to the ultimate result. Further, if we adopted the above definition, we should be obliged to say that a nation whose artisans were twice as skilful as those of another nation, was not, *ceteris paribus*, more wealthy; although it is evident that every one of the results of wealth, and everything for the sake of which wealth is desired, would be possessed by the former country in a higher degree than by the latter.

Every classification according to which a basket of cherries, gathered and eaten the next minute, are called wealth, while that title is denied to the acquired skill of those who are acknowledged to be productive labourers, is a purely arbitrary division, and does not conduce to the ends for which classification and nomenclature are designed.

In order to get over all difficulties, some political economists seem disposed to make the terms express a distinction sufficiently definite indeed, but more com-

pletely arbitrary, and having less foundation in nature, than any of the former. They will not allow to any labour or to any expenditure the name of productive, unless the produce which it yields returns into the hands of the very person who made the outlay. Hedging and ditching they term productive labour, though those operations conduce to production only indirectly, by protecting the produce from destruction ; but the necessary expenses incurred by a government for the protection of property are, they insist upon it, consumed unproductively : though, as has been well pointed out by Mr. M'Culloch, these expenses, in their relation to the national wealth, are exactly analogous to the wages of a hedger or a ditcher. The only difference is, that the farmer, who pays for the hedging and ditching, is the person to whom the consequent increase of production accrues, while the government, which is at the expense of police officers and courts of justice, does not, as a necessary consequence, get back into its own coffers the increase of the national wealth resulting from the security of property.

It would be endless to point out the oddities and incongruities which result from this classification. Whether we take the words wealth and production in the largest, or in the most restricted sense in which they have ever yet been employed, nobody will dispute that roads, bridges, and canals, contribute in an eminent degree, and in a very direct manner, to the increase of production and wealth. The labour and pecuniary resources employed in their construction would, according to the above theory, be considered productive, if every occupier of land were compelled by law to construct so much of the road, or canal, as passes through his own farm. If, instead of this, the government makes the road, and throws it open to the

public toll-free, the labour and expenditure would be, on the above system, clearly unproductive. But if the government, or an association of individuals, made the road, and imposed a toll to defray the expense, we do not see how these writers could refuse to the outlay the title of productive expenditure. It would follow, that the very same labour and expense, if given gratuitously, must be called unproductive, which, if a charge had been made for it, would have been called productive.

When these consequences of the purely arbitrary classification to which we allude have been pointed out and complained of, the only answer which we have ever seen made to the objection is, that the line of demarcation must be drawn somewhere, and that in every classification there are intermediate cases, which might have been included, with almost equal propriety, either in the one class or in the other.

This answer appears to us to indicate the want of a sufficiently accurate and discriminating perception, what is the kind of inaccuracy which generally cannot be avoided in a classification, and what is that other kind of inaccuracy, from which it always may be, and should be, exempt.

The classes themselves may be, mentally speaking, perfectly definite, though it may not always be easy to say to which of them a particular object belongs. When it is uncertain in which of two classes an object should be placed, if the classification be properly made, and properly expressed, the uncertainty can turn only upon a matter of fact. It is uncertain to which class the object belongs, because it is doubtful whether it possesses in a greater degree the characteristics of the one class or those of the other. But the characteristics themselves may be defined and distinguished

with the nicest exactness, and always ought to be so. Especially ought they in a case like the present, because here it is only the distinction between the ideas which is of any importance. That we should be able with ease to portion out all employments between the two classes, does not happen to be of any particular consequence.

It is frequently said that classification is a mere affair of convenience. This assertion is true in one sense, but not if its meaning be, that the most proper classification is that in which it is easiest to say whether an object belongs to one class or to the other. The use of classification is, to fix attention upon the distinctions which exist among things; and that is the best classification, which is founded upon the most important distinctions, whatever be the facilities which it may afford of ticketing and arranging the different objects which exist in nature. In fixing, therefore, the meaning of the words productive and unproductive, we ought to endeavour to render them significative of the most important distinctions which, without too glaring a violation of received usage, they can be made to express.

We ought further, when we are restricted to the employment of old words, to endeavour as far as possible that it shall not be necessary to struggle against the old associations with those words. We should, if possible, give the words such a meaning, that the propositions in which people are accustomed to use them, shall as far as possible still be true; and that the feelings habitually excited by them, shall be such as the things to which we mean to appropriate them ought to excite.

We shall endeavour to unite these conditions in the result of the following inquiry.

In whatever manner political economists may have settled the definition of productive and unproductive labour or consumption, the consequences which they have drawn from the definition are nearly the same. In proportion to the amount of the productive labour and consumption of a country, the country, they all allow, is enriched : in proportion to the amount of the unproductive labour and consumption, the country is impoverished. Productive expenditure they are accustomed to view as a gain ; unproductive expenditure, however useful, as a sacrifice. Unproductive expenditure of what was destined to be expended productively, they always characterise as a squandering of resources, and call it profusion and prodigality. The productive expenditure of that which might, without encroaching upon capital, be expended unproductively, is called saving, economy, frugality. Want, misery, and starvation, are described as the lot of a nation which annually employs less and less of its labour and resources in production ; growing comfort and opulence as the result of an annual increase in the quantity of wealth so employed.

Let us then examine what qualities in expenditure, and in the employment of labour, are those from which all the consequences above mentioned really flow.

The end to which all labour and all expenditure are directed, is twofold. Sometimes it is *enjoyment* immediately ; the fulfilment of those desires, the gratification of which is wished for on its own account. Whenever labour or expense is not incurred *immediately* for the sake of enjoyment, and is yet not absolutely wasted, it must be incurred for the purpose of enjoyment *indirectly* or mediately ; by either repairing and perpetuating, or adding, to the *permanent sources* of enjoyment.

Sources of enjoyment may be accumulated and stored up; enjoyment itself cannot. The wealth of a country consists of the sum total of the permanent sources of enjoyment, whether material or immaterial, contained in it : and labour or expenditure which tends to augment or to keep up these permanent sources, should, we conceive, be termed productive.

Labour which is employed for the purpose of directly affording enjoyment, such as the labour of a performer on a musical instrument, we term unproductive labour. Whatever is consumed by such a performer, we consider as unproductively consumed : the accumulated total of the sources of enjoyment which the nation possesses, is diminished by the amount of what he has consumed : whereas, if it had been given to him in exchange for his services in producing food or clothing, the total of the permanent sources of enjoyment in the country might have been not diminished but increased.

The performer on the musical instrument then is, so far as respects that act, not a productive, but an unproductive labourer. But what shall we say of the workman who made the musical instrument? He, most persons would say, is a productive labourer; and with reason; because the musical instrument is a permanent source of enjoyment, which does not begin and end with the enjoying, and therefore admits of being accumulated.

But the *skill* of the musician is a permanent source of enjoyment, as well as the instrument which he plays upon : and although skill is not a material object, but a quality of an object, viz., of the hands and mind of the performer; nevertheless skill possesses exchangeable value, is acquired by labour and capital, and is capable of being stored and accumulated. Skill, there-

fore, must be considered as wealth ; and the labour and funds employed in acquiring skill in anything tending to the advantage or pleasure of mankind, must be considered to be productively employed and expended.

The skill of a productive labourer is analogous to the machinery he works with : neither of them is enjoyment, nor conduces directly to it, but both conduce indirectly to it, and both in the same way. If a spinning-jenny be wealth, the spinner's skill is also wealth. If the mechanic who made the spinning-jenny laboured productively, the spinner also laboured productively when he was learning his trade : and what they both consumed was consumed productively, that is to say, its consumption did not tend to diminish, but to increase the sum of the permanent sources of enjoyment in the country, by effecting a new creation of those sources, more than equal to the amount of the consumption.

The skill of a tailor, and the implements he employs, contribute in the same way to the convenience of him who wears the coat, namely, a remote way : it is the coat itself which contributes immediately. The skill of Madame Pasta, and the building and decorations which aid the effect of her performance, contribute in the same way to the enjoyment of the audience, namely, an immediate way, without any intermediate instrumentality. The building and decorations are consumed unproductively, and Madame Pasta labours and consumes unproductively ; for the building is used and worn out, and Madame Pasta performs, immediately for the spectators' enjoyment, and without leaving, as a consequence of the performance, any permanent result possessing exchangeable value : consequently the epithet unproductive must be equally applied to the gradual wearing out of the bricks and mortar, the nightly consumption of the more perishable " proper-



ties" of the theatre, the labour of Madame Pasta in acting, and of the orchestra in playing. But notwithstanding this, the architect who built the theatre was a productive labourer; so were the producers of the perishable articles; so were those who constructed the musical instruments; and so, we must be permitted to add, were those who instructed the musicians, and all persons who, by the instructions which they may have given to Madame Pasta, contributed to the formation of her talent. All these persons contributed to the enjoyment of the audience in the same way, and that a remote way, viz., by the production of a *permanent source of enjoyment*.

The difference between this case, and the case of the cotton spinner already adverted to, is this. The spinning-jenny, and the skill of the cotton spinner, are not only the result of productive labour, but are themselves productively consumed. The musical instrument and the skill of the musician are equally the result of productive labour, but are themselves unproductively consumed.

Let us now consider what kinds of labour, and of consumption or expenditure, will be classed as productive, and what as unproductive, according to this rule.

The following are always productive :

Labour and expenditure, of which the direct object or effect is the creation of some material product useful or agreeable to mankind.

Labour and expenditure, of which the direct effect and object are, to endow human or other animated beings with faculties or qualities useful or agreeable to mankind, and possessing exchangeable value.

Labour and expenditure, which without having for their direct object the creation of any useful material

product or bodily or mental faculty or quality, yet tend indirectly to promote one or other of those ends, and are exerted or incurred solely for that purpose.

The following are partly productive and partly unproductive, and cannot with propriety be ranged decidedly with either class :

Labour or expenditure which does indeed create, or promote the creation of, some useful material product or bodily or mental faculty or quality, but which is not incurred or exerted for that sole end ; having also for another, and perhaps its principal end, enjoyment, or the promotion of enjoyment.

Such are the labour of the judge, the legislator, the police-officer, the soldier ; and the expenditure incurred for their support. These functionaries protect and secure mankind in the exclusive possession of such material products or acquired faculties as belong to them ; and by the security which they so confer, they indirectly increase production in a degree far more than equivalent to the expense which is necessary for their maintenance. But this is not the only purpose for which they exist ; they protect mankind, not merely in the possession of their permanent resources, but also in their actual enjoyments ; and so far, although highly useful, they cannot, conformably to the distinction which we have attempted to lay down, be considered productive labourers.

Such, also, are the labour and the wages of domestic servants. Such persons are entertained mainly as subservient to mere enjoyment ; but most of them occasionally, and some habitually, render services which must be considered as of a productive nature ; such as that of cookery, the last stage in the manufacture of food ; or gardening, a branch of agriculture.

The following are wholly unproductive :

Labour exerted, and expenditure incurred, directly and exclusively for the purpose of enjoyment, and not calling into existence anything, whether substance or quality, but such as begins and perishes in the enjoyment.

Labour exerted and expenditure incurred uselessly, or in pure waste, and yielding neither direct enjoyment nor permanent sources of enjoyment.

It may be objected, that expenditure incurred even for pure enjoyment promotes production indirectly, by inciting to exertion. Thus the view of the splendour of a rich establishment is supposed by some writers to produce upon the mind of an indigent spectator an earnest desire of enjoying the same luxuries, and a consequent purpose of working with vigour and diligence, and saving from his earnings, thus increasing the productive capital of the country.

It is true that mankind are, for the most part, excited to productive industry solely by the desire of subsequently consuming the result of their labour and accumulation. The consumption called unproductive, viz., that of which the direct result is enjoyment, is in reality the end, to which production is only the means; and a desire for the end, is what alone impels any one to have recourse to the means.

But, notwithstanding this, it is of the greatest importance to mark the distinction between the labour and the consumption which have enjoyment for their immediate end, and the labour and the consumption of which the immediate end is reproduction. Though the sight of the former may still further stimulate that desire for the enjoyments afforded by wealth, which the mere knowledge, without the immediate view, would suffice to excite (and without dwelling on the

consideration that if the example of a large expenditure excites one individual to accumulation, it encourages two to prodigal expense); still, if we look only to the effects which are intended, or to those which immediately follow from the consumption, and whose connexion with it can be distinctly traced, it evidently renders a country poorer in the permanent sources of enjoyment; while reproductive consumption leaves the country richer in these same sources. Besides, if what is spent for mere pleasure promotes indirectly the increase of wealth, it can only be by inducing others *not* to expend on mere pleasure.

Before quitting the subject, one more observation should be added. It must not be supposed that what is expended upon unproductive labourers is necessarily, the whole of it, unproductively consumed. The unproductive labourers may save part of their wages, and invest them in a productive employment.

It is not unusual to speak of what is paid in wages to a labourer as being thereby *consumed*, as if all profit and loss to the nation were to be seen in the capitalist's account-book. What is paid for productive labour is said to be productively consumed; what is paid for unproductive labour is said to be consumed unproductively. It would be proper to say, not that it is productively or unproductively *consumed*, but productively or unproductively *expended*; otherwise, we shall be obliged to say that it is consumed twice over; the first time unproductively, perhaps, and the second, it may be, productively.

To pronounce in which way the wages of the labourer are consumed, we must follow them into the labourer's own hands. As much as is necessary to keep the productive labourer in perfect health and fitness for his employment, may be said to be consumed produc-

tively. To this should be added what he expends in rearing children to the age at which they become capable of productive industry. If the state of the market for labour be such as to afford him more, this he may either save, or, as the common expression is, he may spend it. If he saves any portion, this (unless it be merely hoarded) he intends to employ productively, and it will be productively consumed. If he spends it, the consumption is for enjoyment immediately, and is therefore unproductive.

This suggests another correction in the established language. Political economists generally define the "net produce" to be that portion of the gross annual produce of a country which remains after replacing the capital annually consumed. This, as they proceed to explain, consists of profits and rent; wages being included in the other portion of the gross produce, that which goes to replace capital. After this definition, they usually proceed to tell us that the net produce, and that alone, constitutes the fund from which a nation can accumulate, and add to its capital, as also that which it can, without retrograding in wealth, expand unproductively, or for enjoyment. Now, it is impossible that both the above propositions can be true. If the net produce is that which remains after replacing capital, then net produce is not the only fund out of which accumulation may be made: for accumulation may be made from wages; this is in all countries one of the great sources, and in countries like America perhaps the greatest source of accumulation. If, on the other hand, it is desirable to reserve the name of net produce to denote the fund available for accumulation or for unproductive consumption, we must define net produce differently. The definition which appears the best adapted to render the ordi-

nary doctrines relating to net produce true, would be this :

The net produce of a country is whatever is annually produced beyond what is necessary for maintaining the stock of materials and implements unimpaired, for keeping all productive labourers alive and in condition for work, and for just keeping up their numbers without increase. What is required for these purposes, or, in other words, for keeping up the productive resources of the country, cannot be diverted from its destination without rendering the nation as a whole poorer. But all which is produced beyond this, whether it be in the hands of the labourer, of the capitalist, or of any of the numerous varieties of rent-owners, may be taken for immediate enjoyment, without prejudice to the productive resources of the community; and whatever part of it is not so taken, constitutes a clear addition to the national capital, or to the permanent sources of enjoyment.

## ESSAY IV.

### ON PROFITS, AND INTEREST.

THE profits of stock are the surplus which remains to the capitalist after replacing his capital : and the ratio which that surplus bears to the capital itself, is the *rate* of profit.

This being the definition of profits, it might seem natural to adopt, as a sufficient theory in regard to the rate of profit, that it depends upon the productive power of capital. Some countries are favoured beyond others, either by nature or art, in the means of production. If the powers of the soil, or of machinery, enable capital to produce what is necessary for replacing itself, and twenty per cent. more, profits will be twenty per cent. ; and so on.

This, accordingly, is a popular mode of speaking on the subject of profits ; but it has only the semblance, not the reality, of an explanation. The “productive power of capital,” though a common, and, for some purposes, a convenient expression, is a delusive one. Capital, strictly speaking, has no productive power. The only productive power is that of labour ; assisted, no doubt, by tools, and acting upon materials. That portion of capital which consists of tools and materials, may be said, perhaps, without any great impropriety, to have a productive power, because they contribute, along with labour, to the accomplishment of production. But that portion of capital which consists of wages, has no productive power of its own. Wages have no productive power ; they are the price of a pro-

ductive power. Wages do not contribute, along with labour, to the production of commodities, no more than the price of tools contributes along with the tools themselves. If labour could be had without purchase, wages might be dispensed with. That portion of capital which is expended in the wages of labour, is only the means by which the capitalist procures to himself, in the way of purchase, the use of that labour in which the power of production really resides.

The proper view of capital is, that anything whatever, which a person possesses, constitutes his capital, provided he is able, and intends, to employ it, not in consumption for the purpose of enjoyment, but in possessing himself of the means of production, with the intention of employing those means productively. Now the means of production are labour, implements, and materials. The only productive power which anywhere exists, is the productive power of labour, implements, and materials.

We need not, on this account, altogether proscribe the expression "productive power of capital;" but we should carefully note, that it can only mean the quantity of real productive power which the capitalist, by means of his capital, can command. This may change, though the productive power of labour remains the same. Wages, for example, may rise; and then, although all the circumstances of production remain exactly as they were before, the same capital will yield a less return, because it will set in motion a less quantity of productive labour.

We may, therefore, consider the capital of a producer as measured by the means which he has of possessing himself of the different essentials of production: namely, labour, and the various articles which labour requires as materials, or of which it avails itself as aids.



The ratio between the price which he has to pay for these means of production, and the produce which they enable him to raise, is the *rate* of his *profit*. If he must give for labour and tools four-fifths of what they will produce, the remaining fifth will constitute his profit, and will give him a rate of one in four, or twenty-five per cent., on his outlay.

It is necessary here to remark, what cannot indeed by any possibility be misunderstood, but might possibly be overlooked in cases where attention to it is indispensable, viz., that we are speaking now of the *rate* of profit, not the gross profit. If the capital of the country is very great, a profit of only five per cent. upon it may be much more ample, may support a much larger number of capitalists and their families in much greater affluence, than a profit of twenty-five per cent. on the comparatively small capital of a poor country. The *gross* profit of a country is the actual amount of necessities, conveniences, and luxuries, which are divided among its capitalists; but whether this be large or small, the rate of profit may be just the same. The rate of profit is the proportion which the profit bears to the capital; which the surplus produce after replacing the outlay, bears to the outlay. In short, if we compare the *price paid* for labour and tools with what that labour and those tools will *produce*, from this ratio we may calculate the rate of profit.

As the gross profit may be very different though the rate of profit be the same; so also may the absolute price paid for labour and tools be very different, and yet the proportion between the price paid and the produce obtained may be just the same. For greater clearness, let us omit, for the present, the consideration of tools, materials, &c., and conceive production as the

result solely of labour. In a certain country, let us suppose, the wages of each labourer are one quarter of wheat per year, and 100 men can produce, in one year, 120 quarters. Here the price paid for labour is to the produce of that labour as 100 to 120, and profits are twenty per cent. Suppose now that, in another country, wages are just double what they are in the country before supposed; namely, two quarters of wheat per year, for each labourer. But suppose, likewise, that the productive power of labour is double what it is in the first country; that by the greater fertility of the soil, 100 men can produce 240 quarters, instead of 120 as before. Here it is obvious, that the real price paid for labour is twice as great in the one country as in the other; but the produce being also twice as great, the ratio between the price of labour and the produce of labour is still exactly the same: an outlay of 200 quarters gives a return of 240 quarters, and profits, as before, are twenty per cent.

Profits, then (meaning not gross profits, but the rate of profit), depend (not upon the price of labour, tools, and materials—but) upon the ratio between the price of labour, tools, and materials, and the produce of them: upon the proportionate share of the produce of industry which it is necessary to offer, in order to purchase that industry and the means of setting it in motion.

We have hitherto spoken of tools, buildings, and materials, as essentials of production, co-ordinate with labour, and equally indispensable with it. This is true; but it is also true that tools, buildings, and materials, are themselves the produce of labour; and that the only cause (cases of monopoly excepted) of their having any value, is the labour which is required for their production.

If tools, buildings, and materials were the spontaneous gifts of nature, requiring no labour either in order to produce or to appropriate them; and if they were thus bestowed upon mankind in indefinite quantity, and without the possibility of being monopolized; they would still be as useful, as indispensable as they now are; but since they could, like air and the light of the sun, be obtained without cost or sacrifice, they would form no part of the expenses of production, and no portion of the produce would be required to be set aside in order to replace the outlay made for these purposes. The whole produce, therefore, after replacing the wages of labour, would be clear profit to the capitalist.

Labour alone is the primary means of production; "the original purchase-money which has been paid for everything." Tools and materials, like other things, have originally cost nothing but labour; and have a value in the market only because wages have been paid for them. The labour employed in making the tools and materials being added to the labour afterwards employed in working up the materials by aid of the tools, the sum total gives the whole of the labour employed in the production of the completed commodity. In the ultimate analysis, therefore, labour appears to be the only essential of production. To replace capital, is to replace nothing but the wages of the labour employed. Consequently, the whole of the surplus, after replacing wages, is profits. From this it seems to follow, that the ratio between the wages of labour and the produce of that labour gives the rate of profit. And thus we arrive at Mr. Ricardo's principle, that profits depend upon wages; rising as wages fall, and falling as wages rise.

To protect this proposition (the most perfect form

in which the law of profits seems to have been yet exhibited) against misapprehension, one or two explanatory remarks are required.

If by wages, be meant what constitutes the real affluence of the labourer, the *quantity* of produce which he receives in exchange for his labour; the proposition that profits vary inversely as wages, will be obviously false. The rate of profit (as has been already observed and exemplified) does not depend upon the price of labour, but upon the proportion between the price of labour and the produce of it. If the produce of labour is large, the price of labour may also be large without any diminution of the rate of profit: and, in fact, the rate of profit is highest in those countries (as, for instance, North America) where the labourer is most largely remunerated. For the wages of labour, though so large, bear a less proportion to the abundant *produce* of labour, there than elsewhere.

But this does not affect the truth of Mr. Ricardo's principle as he himself understood it; because an increase of the labourer's real comforts was not considered by him as a rise of wages. In his language wages were only said to rise, when they rose not in mere quantity but in *value*. To the labourer himself (he would have said) the *quantity* of his remuneration is the important circumstance: but its *value* is the only thing of importance to the person who purchases his labour.

The rate of profits depends not upon absolute or real wages, but upon the *value* of wages.

If, however, by value, Mr. Ricardo had meant *exchangeable* value, his proposition would still have been remote from the truth. Profits depend no more upon the exchangeable value of the labourer's remuneration

neration, than upon its quantity. The truth is, that by the exchangeable value is meant the quantity of commodities which the labourer can purchase with his wages; so that when we say the exchangeable value of wages, we say their quantity, under another name.

Mr. Ricardo, however, did not use the word value in the sense of exchangeable value.

Occasionally, in his writings, he could not avoid using the word as other people use it, to denote value in exchange. But he more frequently employed it in a sense peculiar to himself, to denote cost of production; in other words, the *quantity of labour* required to produce the article; that being his criterion of cost of production. Thus, if a hat could be made with ten days' labour in France and with five days' labour in England, he said that the value of a hat was double in France of what it was in England. If a quarter of corn could be produced a century ago with half as much labour as is necessary at present, Mr. Ricardo said that the value of a quarter of corn had doubled.

Mr. Ricardo, therefore, would not have said that wages had risen, because a labourer could obtain two pecks of flour instead of one, for a day's labour; but if last year he received, for a day's labour, something which required eight hours' labour to produce it, and this year something which requires nine hours, then Mr. Ricardo would say that wages had risen. A rise of wages, with Mr. Ricardo, meant an increase in the cost of production of wages; an increase in the number of hours' labour which goes to produce the wages of a day's labour; an increase in the *proportion* of the fruits of labour which the labourer receives for his own share; an increase in the ratio between the wages

of his labour and the produce of it. This is the theory: the reasoning, of which it is the result, has been given in the preceding paragraphs.

Some of Mr. Ricardo's followers, or more properly, of those who have adopted in most particulars the views of political economy which his genius was the first to open up, have given explanations of Mr. Ricardo's doctrine to nearly the same effect as the above, but in rather different terms. They have said that profits depend not on *absolute* but on *proportional* wages: which they expounded to mean the proportion which the labourers *en masse* receive of the total produce of the country.

It seems, however, to be rather an unusual and inconvenient use of language to speak of anything as depending upon the wages of labour, and then to explain that by wages of labour you do not mean the wages of an individual labourer, but of all the labourers in the country collectively. Mankind will never agree to call anything a rise of wages, except a rise of the wages of individual labourers, and it is therefore preferable to employ language tending to fix attention upon the wages of the individual. The wages, however, on which profits are said to depend, are undoubtedly *proportional* wages, namely, the proportional wages of one labourer: that is, the ratio between the wages of one labourer, and (not the whole produce of the country, but) the amount of what one labourer can produce; the amount of that portion of the collective produce of the industry of the country, which may be considered as corresponding to the labour of one single labourer. Proportional wages, thus understood, may be concisely termed the cost of production of wages; or, more concisely

still, the cost of wages, meaning their cost in the "original purchase-money," labour.

We have now arrived at a distinct conception of Mr. Ricardo's theory of profits in its most perfect state. And this theory we conceive to be the basis of the true theory of profits. All that remains to do is to clear it from certain difficulties which still surround it, and which, though in a greater degree apparent than real, are not to be put aside as wholly imaginary.

Though it is true that tools, materials, and buildings (it is to be wished that there were some compact designation for all these essentials of production taken together), are themselves the produce of labour, and are only on that account to be ranked among the expenses of production; yet the *whole* of their value is not resolvable into the wages of the labourers by whom they were produced. The wages of those labourers were paid by a capitalist, and that capitalist must have the same profit upon his advances as any other capitalist; when, therefore, he sells the tools or materials, he must receive from the purchaser not only the reimbursement of the wages he has paid, but also as much more as will afford him the ordinary rate of profit. And when the producer, after buying the tools and employing them in his own occupation, comes to estimate his gains, he must set aside a portion of the produce to replace not only the wages paid both by himself and by the tool-maker, but also the profits of the tool-maker, advanced by himself out of his own capital.

It is not correct, therefore, to state that all which the capitalist retains after replacing wages forms his profit. It is true the whole return to capital is either wages or profits; but profits do not compose

merely the surplus after replacing the outlay; they also enter into the outlay itself. Capital is expended partly in paying or reimbursing wages, and partly in paying the profits of other capitalists, whose concurrence was necessary in order to bring together the means of production.

If any contrivance, therefore, were devised by which that part of the outlay which consists of previous profits could be either wholly or partially dispensed with, it is evident that more would remain as the profit of the immediate producer; while, as the quantity of *labour* necessary to produce a given quantity of the commodity would be unaltered, as well as the quantity of produce paid for that labour, it seems that the ratio between the price of labour and its produce would be the same as before; that the cost of production of wages would be the same, proportional wages the same, and yet profits different.

To illustrate this by a simple instance, let it be supposed that one-third of the produce is sufficient to replace the wages of the labourers who have been immediately instrumental in the production; that another third is necessary to replace the materials used and the fixed capital worn out in the process; while the remaining third is clear gain, being a profit of 50 per cent. Suppose, for example, that 60 agricultural labourers, receiving 60 quarters of corn for their wages, consume fixed capital and seed amounting to the value of 60 quarters more, and that the result of their operations is a produce of 180 quarters. When we analyse the price of the seed and tools into its elements, we find that they must have been the produce of the labour of 40 men: for the wages of those 40, together with profit at the rate previously supposed (50 per cent.) make up 60 quarters.



The produce, therefore, consisting of 180 quarters, is the result of the labour altogether of 100 men: namely, the 60 first mentioned, and the 40 by whose labour the fixed capital and the seed were produced.

Let us now suppose, by way of an extreme case, that some contrivance is discovered, whereby the purposes to which the second third of the produce had been devoted, may be dispensed with altogether: that some means are invented by which the same amount of produce may be procured without the assistance of any fixed capital, or the consumption of any seed or material sufficiently valuable to be worth calculating. Let us, however, suppose that this cannot be done without taking on a number of additional labourers, equal to those required for producing the seed and fixed capital; so that the saving shall be only in the profits of the previous capitalists. Let us, in conformity with this supposition, assume that in dispensing with the fixed capital and seed, value 60 quarters, it is necessary to take on 40 additional labourers, receiving a quarter of corn each, as before.

The rate of profit has evidently risen. It has increased from 50 per cent. to 80 per cent. A return of 180 quarters could not before be obtained but by an outlay of 120 quarters; it can now be obtained by an outlay of no more than 100.

Here, therefore, is an undeniable rise of profits. Have wages, in the sense above attached to them, fallen or not? It would seem not.

The produce (180 quarters) is still the result of the same quantity of labour as before, namely, the labour of 100 men. A quarter of corn, therefore, is still, as before, the produce of  $\frac{1}{10}$  of a man's labour for a year. Each labourer receives, as before, one quarter

of corn ; each, therefore, receives the produce of  $\frac{1}{8}$  of a year's labour of one man, that is, the same cost of production ; each receives  $\frac{1}{8}$  of the produce of his own labour, that is, the same proportional wages ; and the labourers collectively still receive the same proportion, namely  $\frac{1}{8}$  of the whole produce.

The conclusion, then, cannot be resisted, that Mr. Ricardo's theory is defective : that the rate of profits does *not* exclusively depend upon the value of wages, in his sense, namely, the quantity of labour of which the wages of a labourer are the produce ; that it does *not* exclusively depend upon proportional wages, that is, upon the proportion which the labourers collectively receive of the whole produce, or the ratio which the wages of an individual labourer bear to the produce of his individual labour.

Those political economists, therefore, who have always dissented from Mr. Ricardo's doctrine, or who, having at first admitted, ended by discarding it, were so far in the right ; but they committed a serious error in this, that, with the usual one-sidedness of disputants, they knew no medium between admitting absolutely and dismissing entirely ; and saw no other course than utterly to reject what it would have been sufficient to modify.

It is remarkable how very slight a modification will suffice to render Mr. Ricardo's doctrine completely true. It is even doubtful whether he himself, if called upon to adapt his expressions to this peculiar case, would not have so explained his doctrine as to render it entirely unobjectionable.

It is perfectly true, that, in the example already made use of, a rise of profits takes place, while wages, considered in respect to the quantity of labour of which they are the produce, have not varied at all. But

though wages are still the produce of the same *quantity of labour* as before, the *cost of production* of wages has nevertheless fallen; for into cost of production there enters another element besides labour.

We have already remarked (and the very example out of which the difficulty arose presupposes it) that the cost of production of an article consists generally of two parts,—the *wages* of the labour employed, and the *profits* of those who, in any antecedent stage of the production, have advanced any portion of those wages. An article, therefore, may be the produce of the same quantity of labour as before, and yet, if any portion of the profits which the last producer has to make good to previous producers can be economized, the cost of production of the article is diminished.

Now, in our example, a diminution of this sort is supposed to have taken place in the cost of production of corn. The production of that article has become less costly, in the ratio of six to five. A quantity of corn, the means of producing which could not previously have been secured but at an expense of 120 quarters, can now be produced by means which 100 quarters are sufficient to purchase.

But the labourer is supposed to receive the same quantity of corn as before. He receives one quarter. The cost of production of wages has, therefore, fallen one-sixth. A quarter of corn, which is the remuneration of a single labourer, is indeed the produce of the same quantity of labour as before; but its cost of production is nevertheless diminished. It is now the produce of  $\frac{1}{6}$  of a man's labour, and nothing else; whereas formerly it required for its production the conjunction of that quantity of labour with an expen-

diture, in the form of reimbursement of profit, amounting to one-fifth more.

If the cost of production of wages had remained the same as before, profits could not have risen. Each labourer received one quarter of corn; but one quarter of corn at that time was the result of the same cost of production, as  $1\frac{1}{5}$  quarter now. In order, therefore, that each labourer should receive the same cost of production, each must now receive one quarter of corn, *plus* one-fifth. The labour of 100 men could not be purchased at this price for less than 120 quarters; and the produce, 180 quarters, would yield only 50 per cent., as first supposed.\*

It is, therefore, strictly true, that the rate of profits varies inversely as the cost of production of wages. Profits cannot rise, unless the cost of production of wages falls exactly as much; nor fall, unless it rises.

The proof of this position has been stated in figures, and in a particular case: we shall now state it in general terms, and for all cases.

We have supposed, for simplicity, that wages are paid in the finished commodity. The agricultural labourers, in our example, were paid in corn, and if we had called them weavers, we should have supposed them to be paid in cloth. This supposition is allowable, for it is obviously of no consequence, in a question

\* It would be easy to go over in the same manner any other case. For instance, we may suppose, that, instead of dispensing with the *whole* of the fixed capital, material, &c., and taking on labourers in equal number to those by whom these were produced, *half* only of the fixed capital and material is dispensed with; so that, instead of 60 labourers and a fixed capital worth 60 quarters of corn, we have 80 labourers and a fixed capital worth 30. The numerical statement of this case is more intricate than that in the text, but the result is not different.

of value, or cost of production, what precise article we assume as the medium of exchange. The supposition has, besides, the recommendation of being conformable to the most ordinary state of the facts ; for it is by the sale of his own finished article that each capitalist obtains the means of hiring labourers to renew the production ; which is virtually the same thing as if, instead of selling the article for money and giving the money to his labourers, he gave the article itself to the labourers, and they sold it for their daily bread. •

Assuming, therefore, that the labourer is paid in the very article he produces, it is evident that, when any saving of expense takes place in the production of that article, if the labourer still receives the same cost of production as before, he must receive an increased quantity, in the very same ratio in which the productive power of capital has been increased. But, if so, the outlay of the capitalist will bear exactly the same proportion to the return as it did before ; and profits will not rise.

The variations, therefore, in the rate of profits, and those in the cost of production of wages, go hand in hand, and are inseparable. Mr. Ricardo's principle, that profits cannot rise unless wages fall, is strictly true, if by low wages be meant not merely wages which are the produce of a smaller quantity of labour, but wages which are produced at less cost, reckoning labour and previous profits together. But the interpretation which some economists have put upon Mr. Ricardo's doctrine, when they explain it to mean that profits depend upon the proportion which the labourers collectively receive of the aggregate produce, will not hold at all ; for that, in our first example, remained the same, and yet profits rose.

The only expression of the law of profits, which

seems to be correct, is, that they depend upon the cost of production of wages. This must be received as the ultimate principle.

From this may be deduced all the corollaries which Mr. Ricardo and others have drawn from his theory of profits as expounded by himself. The cost of production of the wages of one labourer for a year, is the result of two concurrent elements or factors,—viz., 1st, the quantity of commodities which the state of the labour market affords to him ; 2ndly, the cost of production of each of those commodities. It follows, that the rate of profits can never rise but in conjunction with one or other of two changes,—1st, a diminished remuneration of the labourer ; or, 2ndly, an improvement in production, or an extension of commerce, by which any of the articles habitually consumed by the labourer may be obtained at smaller cost. (If the improvement be in any article which is not consumed by the labourer, it merely lowers the price of that article, and thereby benefits capitalists and all other people so far as they are consumers of that particular article, and may be said to increase gross profit, but not the rate of profit.)

So, on the other hand, the rate of profit cannot fall, unless concurrently with one of two events : 1st, an improvement in the labourer's condition ; or, 2ndly, an increased difficulty of producing or importing some article which the labourer habitually consumes. The progress of population and cultivation has a tendency to lower profits through the latter of these two channels, owing to the well-known law of the application of capital to land, that a double capital does not *ceteris paribus* yield a double produce. There is, therefore, a tendency in the rate of profits to fall with the progress of society. But there is also an antago-

nist tendency of profits to rise, by the successive introduction of improvements in agriculture, and in the production of those manufactured articles which the labourers consume. Supposing, therefore, that the actual comforts of the labourer remain the same, profits will fall or rise, according as population, or improvements in the production of food and other necessities, advance fastest.

The rate of profits, therefore, tends to *fall* from the following causes:—1. An increase of capital beyond population, producing increased competition for labour; 2. An increase of population, occasioning a demand for an increased quantity of food, which must be produced at a greater cost. The rate of profits tends to *rise* from the following causes:—1. An increase of population beyond capital, producing increased competition for employment; 2. Improvements producing increased cheapness of necessities, and other articles habitually consumed by the labourer.

The circumstances which regulate the rate of interest have usually been treated, even by professed writers on political economy, in a vague, loose, and unscientific manner. It has, however, been felt that there is some connexion between the rate of interest and the rate of profits; that (to use the words of Adam Smith) much will be given for money, when much can be made of it. It has been felt, also, that the fluctuations in the market-rate of interest from day to day, are determined, like other matters of bargain and sale, by demand and supply. It has, therefore, been considered as an established principle, that the rate of interest varies from day to day according to the quantity of capital offered or called for on loan; but conforms on the average of years to a

standard determined by the rate of profits, and bearing some proportion to that rate—but a proportion which few attempts have been made to define.

In consequence of these views, it has been customary to judge of the general rate of profits at any time or place, by the rate of interest at that time and place : it being supposed that the rate of interest, though liable to temporary fluctuations, can never vary for any long period of time unless profits vary ; a notion which appears to us to be erroneous.

It was observed by Adam Smith, that profits may be considered as divided into two parts, of which one may properly be considered as the remuneration for the use of the capital itself, the other as the reward of the labour of superintending its employment ; and that the former of these will correspond with the rate of interest. The producer who borrows capital to employ it in his business, will consent to pay, for the use of it, all that remains of the profits he can make by it, after reserving what he considers reasonable remuneration for the trouble and risk which he incurs by borrowing and employing it.

This remark is just ; but it seems necessary to give greater precision to the ideas which it involves.

The difference between the profit which can be made by the use of capital, and the interest which will be paid for it, is rightly characterized as wages of superintendence. But to infer from this that it is regulated by entirely the same principles as other wages, would be to push the analogy too far. It is wages, but wages paid by a commission upon the capital employed. If the general rate of profit is 10 per cent., and the rate of interest 5 per cent., the wages of superintendence will be 5 per cent ; and though one borrower employ a capital of 100,000*l.*,



another no more than 100*l.*, the labour of both will be rewarded with the same per-centage, though, in the one case, this symbol will represent an income of 5*l.*, in the other case, of 5,000*l.* Yet it cannot be pretended that the labour of the two borrowers differs in this proportion. The rule, therefore, that equal quantities of labour of equal hardness and skill are equally remunerated, does not hold of this kind of labour. The wages of any other labour are here an inapplicable criterion.

The wages of superintendence are distinguished from ordinary wages by another peculiarity, that they are not paid in advance out of capital, like the wages of all other labourers, but merge in the profit, and are not realized until the production is completed. This takes them entirely out of the ordinary law of wages. The wages of labourers who are paid in advance, are regulated by the number of competitors compared with the amount of capital; the labourers can consume no more than what has been previously accumulated. But there is no such limit to the remuneration of a kind of labour which is not paid for out of wealth previously accumulated, but out of that produce which it is itself employed in calling into existence.

When these circumstances are duly weighed, it will be perceived, that although profit may be correctly analyzed into interest and wages of superintendence, we ought not to lay it down as the law of interest, that it is profits *minus* the wages of superintendence. Of the two expressions, it would be decidedly the more correct, that the wages of superintendence are regulated by the rate of interest, or are equal to profits *minus* interest. In strict propriety, neither expression would be allowable. Interest, and the wages of superintendence, can scarcely be said to

depend upon one another. They are to one another in the same relation as wages and profits are. They are like two buckets in a well : when one rises, the other descends, but neither of the two motions is the cause of the other ; both are simultaneous effects of the same cause, the turning of the windlass.

There are among the capitalists of every country a considerable number who are habitually, and almost necessarily, lenders ; to whom scarcely any difference between what they could receive for their money and what could be made by it, would be an equivalent for incurring the risk and labour of carrying on business. In this predicament is the property of widows and orphans ; of many public bodies ; of charitable institutions ; most property which is vested in trustees ; and the property of a great number of persons unused to business, and who have a distaste for it, or whose other occupations prevent their engaging in it. How large a proportion of the property lent to the nation comes under this description, has been pointed out in Mr. Tooke's *Considerations on the State of the Currency*.

There is another large class, consisting of bankers, bill-brokers, and others, who are money-lenders by profession ; who enter into that profession with the intention of making such gains as it will yield them, and who would not be induced to change their business by any but a very strong pecuniary inducement.

There is, therefore, a large class of persons who are habitually lenders. On the other hand, all persons in business may be considered as habitually borrowers. Except in times of stagnation, they are all desirous of extending their business beyond their own capital, and are never desirous of lending any portion

of their capital except for very short periods, during which they cannot advantageously invest it in their own trade.

There is, in short, a productive class, and there is, besides, a class technically styled the monied class, who live upon the interest of their capital, without engaging personally in the work of production.

The class of borrowers may be considered as unlimited. There is no quantity of capital that could be offered to be lent, which the productive classes would not be willing to borrow, at any rate of interest which would afford them the slightest excess of profit above a bare equivalent for the additional risk, incurred by that transaction, of the evils attendant on insolvency. The only assignable limit to the inclination to borrow, is the power of giving security: the producers would find it difficult to borrow more than an amount equal to their own capital. If more than half the capital of the country were in the hands of persons who preferred lending it to engaging personally in business, and if the surplus were greater than could be invested in loans to government, or in mortgages upon the property of unproductive consumers; the competition of lenders would force down the rate of interest very low. A certain portion of the monied class would be obliged either to sacrifice their predilections by engaging in business, or to lend on inferior security; and they would accordingly accept, where they could obtain good security, an abatement of interest equivalent to the difference of risk.

This is an extreme case. Let us put an extreme case of a contrary kind. Suppose that the wealthy people of any country, not relishing an idle life, and having a strong taste for gainful labour, were generally indisposed to accept of a smaller income in order

to be relieved from the labour and anxiety of business. Every producer in flourishing circumstances would be eager to borrow, and few willing to lend. Under these circumstances the rate of interest would differ very little from the rate of profit. The trouble of managing a business is not proportionally increased by an increase of the magnitude of the business ; and a very small surplus profit above the rate of interest, would therefore be a sufficient inducement to capitalists to borrow.

We may even conceive a people whose habits were such, that in order to induce them to lend, it might be necessary to offer them a rate of interest fully equal to the ordinary rate of profit. In that case, of course, the productive classes would scarcely ever borrow. But government, and the unproductive classes, who do not borrow in order to make a profit by the loan, but from the pressure of a real or supposed necessity, might still be ready to borrow at this high rate.

Although the inclination to borrow has no *fixed* or *necessary* limit except the power of giving security, yet it always, in point of fact, stops short of this ; from the uncertainty of the prospects of any individual producer, which generally indisposes him to involve himself to the full extent of his means of payment. There is never any permanent want of market for things in general ; but there may be so for the commodity which any one individual is producing ; and even if there is a demand for the commodity, people may not buy it of him but of some other. There are, consequently, never more than a portion of the producers, the state of whose business encourages them to add to their capital by borrowing ; and even these are disposed to borrow only as much as they see an

*immediate* prospect of profitably employing. There is, therefore, a practical limit to the demands of borrowers at any given instant ; and when these demands are all satisfied, any additional capital offered on loan can find an investment only by a reduction of the rate of interest.

The amount of borrowers being given (and by the amount of borrowers is here meant the aggregate sum which people are willing to borrow at some given rate), the rate of interest will depend upon the quantity of capital owned by people who are unwilling or unable to engage in trade. The circumstances which determine this, are, on the one hand, the degree in which a taste for business, or an aversion to it, happens to be prevalent among the classes possessed of property ; and on the other hand, the amount of the annual accumulation from the earnings of labour. Those who accumulate from their wages, fees, or salaries, have, of course, (speaking generally) no means of investing their savings except by lending them to others : their occupations prevent them from personally superintending any employment.

Upon these circumstances, then, the rate of interest depends, the amount of borrowers being given. And the counter-proposition equally holds, that, the above circumstances being given, the rate of interest depends upon the amount of borrowers.

Suppose, for example, that when the rate of interest has adjusted itself to the existing state of the circumstances which affect the disposition to borrow and to lend, a war breaks out, which induces government, for a series of years, to borrow annually a large sum of money. During the whole of this period, the rate of interest will remain considerably above what it was before, and what it will be afterwards.

Before the commencement of the supposed war, all persons who were supposed to lend at the then rate of interest, had found borrowers, and their capital was invested. This may be assumed; for if any capital had been seeking for a borrower at the existing rate of interest, and unable to find one, its owner would have offered it at a rate slightly below the existing rate. He would, for instance, have bought into the funds, at a slight advance of price; and thus set at liberty the capital of some fundholder, who, the funds yielding a lower interest, would have been obliged to accept a lower interest from individuals.

Since, then, all who were willing to lend their capital at the market rate, have already lent it, Government will not be able to borrow unless by offering higher interest. Though, with the existing habits of the possessors of disposable capital, an increased number cannot be found who are willing to lend at the existing rate, there are doubtless some who will be induced to lend by the temptation of a higher rate. The same temptation will also induce some persons to invest, in the purchase of the new stock, what they would otherwise have expended unproductively in increasing their establishments, or productively, in improving their estates. The rate of interest will rise just sufficiently to call forth an increase of lenders to the amount required.

This we apprehend to be the cause why the rate of interest in this country was so high as it is well known to have been during the last war. It is, therefore, by no means to be inferred, as some have done, that the general rate of profits was unusually high during the same period, because interest was so. Supposing the rate of profits to have been precisely the same during the war, as before or after it, the rate

of interest would nevertheless have risen, from the causes and in the manner above described.

The practical use of the preceding investigation is, to moderate the confidence with which inferences are frequently drawn with respect to the rate of profit from evidence regarding the rate of interest ; and to shew that although the rate of profit is one of the elements which combine to determine the rate of interest, the latter is also acted upon by causes peculiar to itself, and may either rise or fall, both temporarily and permanently, while the general rate of profits remains unchanged.

The introduction of banks, which perform the function of lenders and loan-brokers, with or without that of issuers of paper-money, produces some further anomalies in the rate of interest, which have not, so far as we are aware, been hitherto brought within the pale of exact science.

If bankers were merely a class of middlemen between the lender and the borrower ; if they merely received deposits of capital from those who had it lying unemployed in their hands, and lent this, together with their own capital, to the productive classes, receiving interest for it, and paying interest in their turn to those who had placed capital in their hands ; the effect of the operations of banking on the rate of interest would be to lower it in some slight degree. The banker receives and collects together sums of money much too small, when taken individually, to render it worth while for the owners to look out for an investment, but which in the aggregate form a considerable amount. This amount may be considered a clear addition to the productive capital of the country ; at least, to the capital in activity at any

moment. And as this addition to the capital accrues wholly to that part of it which is not employed by the owners, but lent to other producers, the natural effect is a diminution of the rate of interest.

The banker, to the extent of his own private capital (the expenses of his business being first paid), is a lender at interest. But, being subject to risk and trouble fully equal to that which belongs to most other employments, he cannot be satisfied with the mere interest even of his whole capital : he must have the ordinary profits of stock, or he will not engage in the business : the state of banking must be such as to hold out to him the prospect of adding to the interest of what remains of his own capital after paying the expenses of his business, interest upon capital deposited with him, in sufficient amount to make up, after paying the expenses, the ordinary profit which could be derived from his own capital in any productive employment. This will be accomplished in one of two ways.

1. If the circumstances of society are such as to furnish a ready investment of disposable capital ; (as for instance in London, where the public funds and other securities, of undoubted stability, and affording great advantages for receiving the interest without trouble and realizing the principle without difficulty when required, tempt all persons who have sums of importance lying idle, to invest them on their own account without the intervention of any middleman ;) the deposits with bankers consist chiefly of small sums likely to be wanted in a very short period for current expenses, and the interest on which would seldom be worth the trouble of calculating it. Bankers, therefore, do not allow any interest on their deposits, After



paying the expenses of their business, all the rest of the interest they receive is clear gain. But as the circumstances of banking, as of all other modes of employing capital, will on the average be such as to afford to a person entering into the business a prospect of realizing the ordinary, and no more than the ordinary, profits upon his own capital; the gains of each banker by the investment of his deposits, will not on the average exceed what is necessary to make up his gains on his own capital to the ordinary rate. It is, of course, competition, which brings about this limitation. Whether competition operates by lowering the rate of interest, or by dividing the business among a larger number, it is difficult to decide. Probably it operates in both ways; but it is by no means impossible that it may operate in the latter way alone: just as an increase in the number of physicians does not lower the fees, though it diminishes an average competitor's chance of obtaining them.

It is not impossible that the disposition of the lenders might be such, that they would cease to lend rather than acquiesce in any reduction of the rate of interest. If so, the arrival of a new lender, in the person of a banker of deposit, would not lower the rate of interest in any considerable degree. A slight fall would take place, and with that exception things would be as before, except that the capital in the hands of the banker would have put itself into the place of an equal portion of capital belonging to other lenders, who would themselves have engaged in business (*e.g.*, by subscribing to some joint-stock company, or entering into commandite). Bankers' profits would then be limited to the ordinary rate chiefly by the division of the business among many banks, so that each on the average would receive no more interest on his deposits

than would suffice to make up the interest on his own capital to the ordinary rate of profit after paying all expenses.

2. But if the circumstances of society render it difficult and inconvenient for persons who wish to live upon the interest of their money, to seek an investment for themselves, the bankers become agents for this specific purpose: large as well as small sums are deposited with them, and they allow interest to their customers. Such is the practice of the Scotch banks, and of most of the country banks in England. Their customers, not living at any of the great seats of money transactions, prefer entrusting their capital to somebody on the spot, whom they know, and in whom they confide. He invests their money on the best terms he can, and pays to them such interest as he can afford to give; retaining a compensation for his own risk and trouble. This compensation is fixed by the competition of the market. The rate of interest is no further lowered by this operation, than inasmuch as it brings together the lender and the borrower in a safe and expeditious manner. The lender incurs less risk, and a larger proportion, therefore, of the holders of capital are willing to be lenders.

When a banker, in addition to his other functions, is also an issuer of paper money, he gains an advantage similar to that which the London bankers derive from their deposits. To the extent to which he can put forth his notes, he has so much the more to lend, without himself having to pay any interest for it.

If the paper is convertible, it cannot get into circulation permanently without displacing specie, which goes abroad and brings back an equivalent value. To the extent of this value, there is an increase of the capital of the country; and the increase accrues

solely to that part of the capital which is employed in loans.

If the paper is inconvertible, and instead of displacing specie depreciates the currency, the banker by issuing it levies a tax on every person who has money in his hands or due to him. He thus appropriates to himself a portion of the capital of other people, and a portion of their revenue. The capital might have been intended to be lent, or it might have been intended to be employed by the owner: such part of it as was intended to be employed by the owner now changes its destination, and is lent. The revenue was either intended to be accumulated, in which case it had already become capital, or it was intended to be spent: in this last case, revenue is converted into capital: and thus, strange as it may appear, the depreciation of the currency, when effected in this way, operates to a certain extent as a forced accumulation. This, indeed, is no palliation of its iniquity. Though A might have spent his property unproductively, B ought not to be permitted to rob him of it because B will expend it on productive labour.

In any supposable case, however, the issue of paper money by bankers increases the proportion of the whole capital of the country which is destined to be lent. The rate of interest must therefore fall, until some of the lenders give over lending, or until the increase of borrowers absorbs the whole.

But a fall of the rate of interest, sufficient to enable the money market to absorb the whole of the paper-loans, may not be sufficient to reduce the profits of a lender who lends what costs him nothing, to the ordinary rate of profit upon his capital. Here, therefore, competition will operate chiefly by dividing the business. The notes of each bank will be confined

within so narrow a district, or will divide the supply of a district with so many other banks, that on the average each will receive no larger amount of interest on his notes than will make up the interest on his own capital to the ordinary rate of profit.

Even in this way, however, the competition has the effect, to a certain limited extent, of lowering the rate of interest; for the power of bankers to receive interest on more than their capital attracts a greater amount of capital into the banking business than would otherwise flow into it; and this greater capital being all lent, interest will fall in consequence.

## ESSAY V.

### ON THE DEFINITION OF POLITICAL ECONOMY ; AND ON THE METHOD OF INVESTIGATION PROPER TO IT.

It might be imagined, on a superficial view of 'the nature and objects of definition, that the definition of a science would occupy the same place in the chronological which it commonly does in the didactic order. As a treatise on any science usually commences with an attempt to express, in a brief formula, what the science is, and wherein it differs from other sciences, so, it might be supposed, did the framing of such a formula naturally precede the successful cultivation of the science.

This, however, is far from having been the case. The definition of a science has almost invariably not preceded, but followed, the creation of the science itself. Like the wall of a city, it has usually been erected, not to be a receptacle for such edifices as might afterwards spring up, but to circumscribe an aggregation already in existence. Mankind did not measure out the ground for intellectual cultivation before they began to plant it ; they did not divide the field of human investigation into regular compartments first, and then begin to collect truths for the purpose of being therein deposited ; they proceeded in a less systematic manner. As discoveries were gathered in, either one by one, or in groups resulting from the continued prosecution of some uniform course of inquiry, the truths which were successfully brought

into store cohered and became agglomerated according to their individual affinities. Without any intentional classification, the facts classed themselves. They became associated in the mind, according to their general and obvious resemblances; and the aggregates thus formed, having to be frequently spoken of as aggregates, came to be denoted by a common name. Any body of truths which had thus acquired a collective denomination, was called a *science*. It was long before this fortuitous classification was felt not to be sufficiently precise. It was in a more advanced stage of the progress of knowledge that mankind became sensible of the advantage of ascertaining whether the facts which they had thus grouped together were distinguished from all other facts by any common properties, and what these were. The first attempts to answer this question were commonly very unskilful, and the consequent definitions extremely imperfect.

And, in truth, there is scarcely any investigation in the whole body of a science requiring so high a degree of analysis and abstraction, as the inquiry, what the science itself is; in other words, what are the properties common to all the truths composing it, and distinguishing them from all other truths. Many persons, accordingly, who are profoundly conversant with the details of a science, would be very much at a loss to supply such a definition of the science itself as should not be liable to well-grounded logical objections. From this remark, we cannot except the authors of elementary scientific treatises. The definitions which those works furnish of the sciences, for the most part either do not fit them—some being too wide, some too narrow—or do not go deep enough into them, but define a science by its accidents, not its essentials; by some one of its properties which may, indeed, serve

the purpose of a distinguishing mark, but which is of too little importance to have ever of itself led mankind to give the science a name and rank as a separate object of study.

The definition of a science must, indeed, be placed among that class of truths which Dugald Stewart had in view, when he observed that the first principles of all sciences belong to the philosophy of the human mind. The observation is just; and the first principles of all sciences, including the definition of them, have consequently participated hitherto in the vagueness and uncertainty which has pervaded that most difficult and unsettled of all branches of knowledge. If we open any book, even of mathematics or natural philosophy, it is impossible not to be struck with the mistiness of what we find represented as preliminary and fundamental notions, and the very insufficient manner in which the propositions which are palmed upon us as first principles seem to be made out, contrasted with the lucidity of the explanations and the conclusiveness of the proofs as soon as the writer enters upon the details of his subject. Whence comes this anomaly? Why is the admitted certainty of the results of those sciences in no way prejudiced by the want of solidity in their premises? How happens it that a firm superstructure has been erected upon an unstable foundation? The solution of the paradox is, that what are called first principles, are, in truth, *last* principles. Instead of being the fixed point from whence the chain of proof which supports all the rest of the science hangs suspended, they are themselves the remotest link of the chain. Though presented as if all other truths were to be deduced from them, they are the truths which are last arrived at; the result of the last stage of generalization, or of the last and

subtlest process of analysis, to which the particular truths of the science can be subjected; those particular truths having been previously ascertained by the evidence proper to their own nature.

Like other sciences, Political Economy has remained destitute of a definition framed on strictly logical principles, or even of, what is more easily to be had, a definition exactly co-extensive with the thing defined. This has not, perhaps, caused the real bounds of the science to be, in this country at least, practically mistaken or overpassed; but it has occasioned—perhaps we should rather say it is connected with—indefinite, and often erroneous, conceptions of the mode in which the science should be studied.

We proceed to verify these assertions by an examination of the most generally received definitions of the science.

1. First, as to the vulgar notion of the nature and object of Political Economy, we shall not be wide of the mark if we state it to be something to this effect:—That Political Economy is a science which teaches, or professes to teach, in what manner a nation may be made rich. This notion of what constitutes the science, is in some degree countenanced by the title and arrangement which Adam Smith gave to his invaluable work. A systematic treatise on Political Economy, he chose to call an *Inquiry into the Nature and Causes of the Wealth of Nations*; and the topics are introduced in an order suitable to that view of the purpose of his book.

With respect to the definition in question, if definition it can be called which is not found in any set form of words, but left to be arrived at by a process of abstraction from a hundred current modes of speaking on the subject; it seems liable to the conclusive objec-



tion, that it confounds the essentially distinct, though closely connected, ideas of *science and art*. These two ideas differ from one another as the understanding differs from the will, or as the indicative mood in grammar differs from the imperative. The one deals in facts, the other in precepts. Science is a collection of *truths* ; art a body of *rules*, or directions for conduct. The language of science is, This is, or, This is not ; This does, or does not, happen. The language of art is, Do this ; Avoid that. Science takes cognizance of a *phenomenon*, and endeavours to discover its *law* ; art proposes to itself an *end*, and looks out for *means* to effect it.

If, therefore, Political Economy be a science, it cannot be a collection of practical rules ; though, unless it be altogether a useless science, practical rules must be capable of being founded upon it. The science of mechanics, a branch of natural philosophy, lays down the laws of motion, and the properties of what are called the mechanical powers. The art of practical mechanics teaches how we may avail ourselves of those laws and properties, to increase our command over external nature. An art would not be an art, unless it were founded upon a scientific knowledge of the properties of the subject-matter : without this, it would not be philosophy, but empiricism ; *ἐμπειρία*, not *τέχνη*, in Plato's sense. Rules, therefore, for making a nation increase in wealth, are not a science, but they are the results of science. Political Economy does not of itself instruct how to make a nation rich ; but whoever would be qualified to judge of the means of making a nation rich, must first be a political economist.

2. The definition most generally received among instructed persons, and laid down in the commence-

ment of most of the professed treatises on the subject, is to the following effect:—That Political Economy informs us of the laws which regulate the production, distribution, and consumption of wealth. To this definition is frequently appended a familiar illustration. Political Economy, it is said, is to the state, what domestic economy is to the family.

This definition is free from the fault which we pointed out in the former one. It distinctly takes notice that Political Economy is a science and not an art; that it is conversant with laws of nature, not with maxims of conduct, and teaches us how things take place of themselves, not in what manner it is advisable for us to shape them, in order to attain some particular end.

But though the definition is, with regard to this particular point, unobjectionable, so much can scarcely be said for the accompanying illustration; which rather sends back the mind to the current loose notion of Political Economy already disposed of. Political Economy is really, and is stated in the definition to be, a science: but domestic economy, so far as it is capable of being reduced to principles, is an art. It consists of rules, or maxims of prudence, for keeping the family regularly supplied with what its wants require, and securing, with any given amount of means, the greatest possible quantity of physical comfort and enjoyment. Undoubtedly the beneficial *result*, the great practical *application* of Political Economy, would be to accomplish for a nation something like what the most perfect domestic economy accomplishes for a single household: but supposing this purpose realised, there would be the same difference between the rules by which it might be effected, and Political Economy, which there is between the art of

gunnery and the theory of projectiles, or between the rules of mathematical land-surveying and the science of trigonometry.

The definition, though not liable to the same objection as the illustration which is annexed to it, is itself far from unexceptionable. To neither of them, considered as standing at the head of a treatise, have we much to object. At a very early stage in the study of the science, anything more accurate would be useless, and therefore pedantic. In a merely initiatory definition, scientific precision is not required: the object is, to insinuate into the learner's mind, it is scarcely material by what means, some general preconception of what are the uses of the pursuit, and what the series of topics through which he is about to travel. As a mere anticipation or *ébauche* of a definition, intended to indicate to a learner as much as he is able to understand before he begins, of the nature of what is about to be taught to him, we do not quarrel with the received formula. But if it claims to be admitted as that complete *definitio* or boundary-line, which results from a thorough exploring of the whole extent of the subject, and is intended to mark the exact place of Political Economy among the sciences, its pretension cannot be allowed.

“The science of the laws which regulate the production, distribution, and consumption of wealth.” The term wealth is surrounded by a haze of floating and vapoury associations, which will let nothing that is seen through them be shown distinctly. Let us supply its place by a periphrasis. Wealth is defined, all objects useful or agreeable to mankind, except such as can be obtained in indefinite quantity without labour. Instead of all objects, some authorities say, all material objects: the distinction is of no moment for the present purpose.

To confine ourselves to production : If the laws of the production of all objects, or even of all material objects, which are useful or agreeable to mankind, were comprised in Political Economy, it would be difficult to say where the science would end : at the least, all or nearly all physical knowledge would be included in it. Corn and cattle are material objects, in a high degree useful to mankind. The laws of the production of the one include the principles of agriculture ; the production of the other is the subject of the art of cattle-breeding, which, in so far as really an art, must be built upon the science of physiology. The laws of production of manufactured articles involve the whole of chemistry and the whole of mechanics. The laws of the production of the wealth which is extracted from the bowels of the earth, cannot be set forth without taking in a large part of geology.

When a definition so manifestly surpasses in extent what it professes to define, we must suppose that it is not meant to be interpreted literally, though the limitations with which it is to be understood are not stated.

Perhaps it will be said, that Political Economy is conversant with such only of the laws of the production of wealth as are applicable to *all* kinds of wealth : those which relate to the details of particular trades or employments forming the subject of other and totally distinct sciences.

If, however, there were no more in the distinction between Political Economy and physical science than this, the distinction, we may venture to affirm, would never have been made. No similar division exists in any other department of knowledge. We do not break up zoology or mineralogy into two parts ; one treating of the properties common to all animals, or to

all minerals ; another conversant with the properties peculiar to each particular species of animals or minerals. The reason is obvious ; there is no distinction *in kind* between the general laws of animal or of mineral nature and the peculiar properties of particular species. There is as close an analogy between the general laws and the particular ones, as there is between one of the general laws and another : most commonly, indeed, the particular laws are but the complex result of a plurality of general laws modifying each other. A separation, therefore, between the general laws and the particular ones, merely because the former are general and the latter particular, would run counter both to the strongest motives of convenience and to the natural tendencies of the mind. If the case is different with the laws of the production of wealth, it must be because, in this case, the general laws differ in kind from the particular ones. But if so, the difference in kind is the radical distinction, and we should find out what that is, and found our definition upon it.

But, further, the recognised boundaries which separate the field of Political Economy from that of physical science, by no means correspond with the distinction between the truths which concern all kinds of wealth and those which relate only to some kinds. The three laws of motion, and the law of gravitation, are common, as far as human observation has yet extended, to all matter ; and these, therefore, as being among the laws of the production of all wealth, should form part of Political Economy. There are hardly any of the processes of industry which do not partly depend upon the properties of the lever ; but it would be a strange classification which included those properties among the truths of Political Economy. Again,

the latter science has many inquiries altogether as special, and relating as exclusively to particular sorts of material objects, as any of the branches of physical science. The investigation of some of the circumstances which regulate the price of corn, has as little to do with the laws common to the production of all wealth, as any part of the knowledge of the agriculturist. The inquiry into the rent of mines or fisheries, or into the value of the precious metals, elicits truths which have immediate reference to the production solely of a peculiar kind of wealth; yet these are admitted to be correctly placed in the science of Political Economy.

The real distinction between Political Economy and physical science must be sought in something deeper than the nature of the subject-matter; which, indeed, is for the most part common to both. Political Economy, and the scientific grounds of all the useful arts, have in truth one and the same subject-matter; namely, the objects which conduce to man's convenience and enjoyment: but they are, nevertheless, perfectly distinct branches of knowledge.

3. If we contemplate the whole field of human knowledge, attained or attainable, we find that it separates itself obviously, and as it were spontaneously, into two divisions, which stand so strikingly in opposition and contradistinction to one another, that in all classifications of our knowledge they have been kept apart. These are, *physical* science, and *moral* or psychological science. The difference between these two departments of our knowledge does not reside in the subject-matter with which they are conversant: for although, of the simplest and most elementary parts to each, it may be said, with an approach to truth, that they are concerned with different subject-

matters—namely, the one with the human mind, the other with all things whatever except the mind; this distinction does not hold between the higher regions of the two. Take the science of politics, for instance, or that of law: who will say that these are physical sciences? and yet is it not obvious that they are conversant fully as much with matter as with mind? Take, again, the theory of music, of painting, of any other of the fine arts, and who will venture to pronounce that the facts they are conversant with belong either wholly to the class of matter, or wholly to that of mind?

The following seems to be the *rationale* of the distinction between physical and moral science.

In all the intercourse of man with nature, whether we consider him as acting upon it, or as receiving impressions from it, the effect or phenomenon depends upon causes of two kinds: the properties of the object acting, and those of the object acted upon. Everything which can possibly happen in which man and external things are jointly concerned, results from the joint operation of a law or laws of matter, and a law or laws of the human mind. Thus the production of corn by human labour is the result of a law of mind, and many laws of matter. The laws of matter are those properties of the soil and of vegetable life which cause the seed to germinate in the ground, and those properties of the human body which render food necessary to its support. The law of mind is, that man desires to possess subsistence, and consequently wills the necessary means of procuring it.

Laws of mind and laws of matter are so dissimilar in their nature, that it would be contrary to all principles of rational arrangement to mix them up as part of the same study. In all scientific methods, there-

fore, they are placed apart. Any compound effect or phenomenon which depends both on the properties of matter and on those of mind, may thus become the subject of two completely distinct sciences, or branches of science ; one, treating of the phenomenon in so far as it depends upon the laws of matter only ; the other treating of it in so far as it depends upon the laws of mind.

\* The physical sciences are those which treat of the laws of matter, and of all complex phenomena in so far as dependent upon the laws of matter. The mental or moral sciences are those which treat of the laws of mind, and of all complex phenomena in so far as dependent upon the laws of mind.

Most of the moral sciences presuppose physical science ; but few of the physical sciences presuppose moral science. The reason is obvious. There are many phenomena (an earthquake, for example, or the motions of the planets) which depend upon the laws of matter exclusively ; and have nothing whatever to do with the laws of mind. Many, therefore, of the physical sciences may be treated of without any reference to mind, and as if the mind existed as a recipient of knowledge only, not as a cause producing effects. But there are no phenomena which depend exclusively upon the laws of mind ; even the phenomena of the mind itself being partially dependent upon the physiological laws of the body. All the mental sciences, therefore, not excepting the pure science of mind, must take account of a great variety of physical truths ; and (as physical science is commonly and very properly studied first) may be said to presuppose them, taking up the complex phenomena where physical science leaves them.

Now this, it will be found, is a precise statement



of the relation in which Political Economy stands to the various sciences which are tributary to the arts of production.

The laws of the production of the objects which constitute wealth, are the subject-matter both of Political Economy and of almost all the physical sciences. Such, however, of those laws as are purely laws of matter, belong to physical science, and to that exclusively. Such of them as are laws of the human mind, and no others, belong to Political Economy, which finally sums up the result of both combined.

Political Economy, therefore, presupposes all the physical sciences; it takes for granted all such of the truths of those sciences as are concerned in the production of the objects demanded by the wants of mankind; or at least it takes for granted that the physical part of the process takes place somehow. It then inquires what are the phenomena of *mind* which are concerned in the production and distribution\* of

\* We say, the *production* and *distribution*, not, as is usual with writers on this science, the production, distribution, and *consumption*. For we contend that Political Economy, as conceived by those very writers, has nothing to do with the consumption of wealth, further than as the consideration of it is inseparable from that of production, or from that of distribution. We know not of any *laws* of the *consumption* of wealth as the subject of a distinct science: they can be no other than the laws of human enjoyment. Political economists have never treated of consumption on its own account, but always for the purpose of the inquiry in what manner different kinds of consumption affect the production and distribution of wealth. Under the head of Consumption, in professed treatises on the science, the following are the subjects treated of:—1st, The distinction between *productive* and *unproductive* consumption; 2nd, The inquiry whether it is possible for *too much* wealth to be *produced*, and for too great a portion of what has been produced to be applied to the purpose of further *production*; 3rd, The theory of taxation, that is

those same objects ; it borrows from the pure science of mind the laws of those phenomena, and inquires what effects follow from these mental laws, acting in concurrence with those physical ones.\*

From the above considerations the following seems to come out as the correct and complete definition of Political Economy :—"The science which treats of the production and distribution of wealth, so far as they depend upon the laws of human nature." Or thus—"The science relating to the moral or psychological laws of the production and distribution of wealth."

For popular use this definition is amply sufficient, but it still falls short of the complete accuracy required for the purposes of the philosopher. Political Economy does not treat of the production and distribution of wealth in all states of mankind, but only in what is termed the social state ; nor so far as they depend upon the laws of human nature, but only so far as they depend upon a certain portion of those laws. This, at least, is the view which must be taken of Political Economy, if we mean it to find any place in an encyclopedical division of the field of science. On any other view, it either is not science at all, or it is several sciences. This will appear clearly, if, on

to say, the following two questions—by whom each particular tax is paid (a question of *distribution*), and in what manner particular taxes affect *production*.

\* The physical laws of the production of useful objects are all equally presupposed by the science of Political Economy: most of them, however, it presupposes in the gross, seeming to say nothing about them. A few (such, for instance, as the decreasing ratio in which the produce of the soil is increased by an increased application of labour) it is obliged particularly to specify, and thus seems to borrow those truths from the physical sciences to which they properly belong, and include them among its own.

the one hand, we take a general survey of the moral sciences, with a view to assign the exact place of Political Economy among them ; while, on the other, we consider attentively the nature of the methods or processes by which the truths which are the object of those sciences are arrived at.

Man, who, considered as a being having a moral or mental nature, is the subject-matter of all the moral sciences, may, with reference to that part of his nature, form the subject of philosophical inquiry under several distinct hypotheses. We may inquire what belongs to man considered individually, and as if no human being existed besides himself ; we may next consider him as coming into contact with other individuals ; and finally, as living in a state of *society*, that is, forming part of a body or aggregation of human beings, systematically co-operating for common purposes. Of this last state, political government, or subjection to a common superior, is an ordinary ingredient, but forms no necessary part of the conception, and, with respect to our present purpose, needs not be further adverted to.

Those laws or properties of human nature which appertain to man as a mere individual, and do not presuppose, as a necessary condition, the existence of other individuals (except, perhaps, as mere instruments or means), form a part of the subject of pure mental philosophy. They comprise all the laws of the mere intellect, and those of the purely self-regarding desires.

Those laws of human nature which relate to the feelings called forth in a human being by other individual human or intelligent beings, as such ; namely, the *affections*, the *conscience*, or feeling of duty, and the love of *approbation* ; and to the conduct of man, so

far as it depends upon, or has relation to, these parts of his nature—form the subject of another portion of pure mental philosophy, namely, that portion of it on which *morals*, or *ethics*, are founded. For morality itself is not a science, but an art; not truths, but rules. The truths on which the rules are founded are drawn (as is the case in all arts) from a variety of sciences; but the principal of them, and those which are most nearly peculiar to this particular art, belong to a branch of the science of mind.

Finally, there are certain principles of human nature which are peculiarly connected with the ideas and feelings generated in man by living in a state of *society*, that is, by forming part of a union or aggregation of human beings for a common purpose or purposes. Few, indeed, of the elementary laws of the human mind are peculiar to this state, almost all being called into action in the two other states. But those simple laws of human nature, operating in that wider field, give rise to results of a sufficiently universal character, and even (when compared with the still more complex phenomena of which they are the determining causes) sufficiently simple, to admit of being called, though in a somewhat looser sense, *laws* of society, or laws of human nature in the social state. These laws, or general truths, form the subject of a branch of science which may be aptly designated from the title of *social economy*; somewhat less happily by that of *speculative politics*, or the *science* of politics, as contradistinguished from the art. This science stands in the same relation to the social, as anatomy and physiology to the physical body. It shows by what principles of his nature man is induced to enter into a state of society; how this feature in his position acts upon his interests and feelings, and through them

upon his conduct ; how the association tends progressively to become closer, and the co-operation extends itself to more and more purposes ; what those purposes are, and what the varieties of means most generally adopted for furthering them ; what are the various relations which establish themselves among human beings as the ordinary consequence of the social union ; what those which are different in different states of society ; in what historical order those states tend to succeed one another ; and what are the effects of each upon the conduct and character of man.

This branch of science, whether we prefer to call it social economy, speculative politics, or the natural history of society, presupposes the whole science of the nature of the individual mind ; since all the laws of which the latter science takes cognizance are brought into play in a state of society, and the truths of the social science are but statements of the manner in which those simple laws take effect in complicated circumstances. Pure mental philosophy, therefore, is an essential part, or preliminary, of political philosophy. The science of social economy embraces every part of man's nature, in so far as influencing the conduct or condition of man in society ; and therefore may it be termed speculative politics, as being the scientific foundation of practical politics, or the art of government, of which the art of legislation is a part.\*

\* The *science* of legislation is an incorrect and misleading expression. Legislation is *making laws*. We do not talk of the *science* of *making* anything. Even the *science of government* would be an objectionable expression, were it not that *government* is often loosely taken to signify, not the act of governing, but the state or condition of *being governed*, or of living under a government. A preferable expression would be, the

It is to *this* important division of the field of science that one of the writers who have most correctly conceived and copiously illustrated its nature and limits,—we mean M. Say,—has chosen to give the name Political Economy. And, indeed, this large extension of the signification of that term is countenanced by its etymology. But the words “political economy” have long ceased to have so large a meaning. Every writer is entitled to use the words which are his tools in the manner which he judges most conducive to the general purposes of the exposition of truth; but he exercises this discretion under liability to criticism: and M. Say seems to have done in this instance, what should never be done without strong reasons; to have altered the meaning of a name which was appropriated to a particular purpose (and for which, therefore, a substitute must be provided), in order to transfer it to an object for which it was easy to find a more characteristic denomination.

What is now commonly understood by the term “Political Economy” is not the science of speculative politics, but a branch of that science. It does not treat of the whole of man’s nature as modified by the social state, nor of the whole conduct of man in society. It is concerned with him solely as a being who desires to possess wealth, and who is capable of judging of the comparative efficacy of means for obtaining that end. It predicts only such of the phenomena of the social state as take place in consequence of the pursuit of wealth. It makes entire abstraction of every other human passion or motive; except those which may be regarded as perpetually

science of *political society*: a principal branch of the more extensive science of society, characterized in the text.

antagonizing principles to the desire of wealth, namely, aversion to labour, and desire of the present enjoyment of costly indulgences. These it takes, to a certain extent, into its calculations, because these do not merely, like other desires, occasionally conflict with the pursuit of wealth, but accompany it always as a drag, or impediment, and are therefore inseparably mixed up in the consideration of it. Political Economy considers mankind as occupied solely in acquiring and consuming wealth; and aims at showing what is the course of action into which mankind, living in a state of society, would be impelled, if that motive, except in the degree in which it is checked by the two perpetual counter-motives above adverted to, were absolute ruler of all their actions. Under the influence of this desire, it shows mankind accumulating wealth, and employing that wealth in the production of other wealth; sanctioning by mutual agreement the institution of property; establishing laws to prevent individuals from encroaching upon the property of others by force or fraud; adopting various contrivances for increasing the productiveness of their labour; settling the division of the produce by agreement, under the influence of competition (competition itself being governed by certain laws, which laws are therefore the ultimate regulators of the division of the produce); and employing certain expedients (as money, credit, &c.) to facilitate the distribution. All these operations, though many of them are really the result of a plurality of motives, are considered by Political Economy as flowing solely from the desire of wealth. The science then proceeds to investigate the laws which govern these several operations, under the supposition that man is a being who is determined, by the necessity of his nature, to prefer a greater portion

of wealth to a smaller in all cases, without any other exception than that constituted by the two counter-motives already specified. Not that any political economist was ever so absurd as to suppose that mankind are really thus constituted, but because this is the mode in which science must necessarily proceed. When an effect depends upon a concurrence of causes, those causes must be studied one at a time, and their laws separately investigated, if we wish, through the causes, to obtain the power of either predicting or controlling the effect; since the law of the effect is compounded of the laws of all the causes which determine it. The law of the centripetal and that of the tangential force must have been known before the motions of the earth and planets could be explained, or many of them predicted. The same is the case with the conduct of man in society. In order to judge how he will act under the variety of desires and aversions which are concurrently operating upon him, we must know how he would act under the exclusive influence of each one in particular. There is, perhaps, no action of a man's life in which he is neither under the immediate nor under the remote influence of any impulse but the mere desire of wealth. With respect to those parts of human conduct of which wealth is not even the principal object, to these Political Economy does not pretend that its conclusions are applicable. But there are also certain departments of human affairs, in which the acquisition of wealth is the main and acknowledged end. It is only of these that Political Economy takes notice. The manner in which it necessarily proceeds is that of treating the main and acknowledged end as if it were the sole end; which, of all hypotheses equally simple, is the nearest to the truth. The political economist inquires, what



are the actions which would be produced by this desire, if, within the departments in question, it were unimpeded by any other. In this way a nearer approximation is obtained than would otherwise be practicable, to the real order of human affairs in those departments. This approximation is then to be corrected by making proper allowance for the effects of any impulses of a different description, which can be shown to interfere with the result in any particular case. Only in a few of the most striking cases (such as the important one of the principle of population) are these corrections interpolated into the expositions of Political Economy itself; the strictness of purely scientific arrangement being thereby somewhat departed from, for the sake of practical utility. So far as it is known, or may be presumed, that the conduct of mankind in the pursuit of wealth is under the collateral influence of any other of the properties of our nature than the desire of obtaining the greatest quantity of wealth with the least labour and self-denial, the conclusions of Political Economy will so far fail of being applicable to the explanation or prediction of real events, until they are modified by a correct allowance for the degree of influence exercised by the other cause.

Political Economy, then, may be defined as follows : and the definition seems to be complete :—

“The science which traces the laws of such of the phenomena of society as arise from the combined operations of mankind for the production of wealth, in so far as those phenomena are not modified by the pursuit of any other object.”

But while this is a correct definition of Political Economy as a portion of the field of science, the didactic writer on the subject will naturally combine

in his exposition, with the truths of the pure science, as many of the practical modifications as will, in his estimation, be most conducive to the usefulness of his work.

The above attempt to frame a stricter definition of the science than what are commonly received as such, may be thought to be of little use; or, at best, to be chiefly useful in a general survey and classification of the sciences, rather than as conducing to the more successful pursuit of the particular science in question. We think otherwise, and for this reason; that, with the consideration of the definition of a science, is inseparably connected that of the *philosophic method* of the science; the nature of the process by which its investigations are to be carried on, its truths to be arrived at.

Now, in whatever science there are systematic differences of opinion—which is as much as to say, in all the moral or mental sciences, and in Political Economy among the rest; in whatever science there exist, among those who have attended to the subject, what are commonly called differences of principle, as distinguished from differences of matter-of-fact or detail,—the cause will be found to be, a difference in their conceptions of the philosophic method of the science. The parties who differ are guided, either knowingly or unconsciously, by different views concerning the nature of the evidence appropriate to the subject. They differ not solely in what they believe themselves to see, but in the quarter whence they obtained the light by which they think they see it.

The most universal of the forms in which this difference of method is accustomed to present itself, is the ancient feud between what is called theory, and what is

called practice or experience. There are, on social and political questions, two kinds of reasoners: there is one portion who term themselves practical men, and call the others theorists; a title which the latter do not reject, though they by no means recognise it as peculiar to them. The distinction between the two is a very broad one, though it is one of which the language employed is a most incorrect exponent. It has been again and again demonstrated, that those who are accused of despising facts and disregarding experience build and profess to build wholly upon facts and experience; while those who disavow theory cannot make one step without theorizing. But, although both classes of inquirers do nothing but theorize, and both of them consult no other guide than experience, there is this difference between them, and a most important difference it is: that those who are called practical men require *specific* experience, and argue wholly *upwards* from particular facts to a general conclusion; while those who are called theorists aim at embracing a wider field of experience, and, having argued upwards from particular facts to a general principle including a much wider range than that of the question under discussion, then argue *downwards* from that general principle to a variety of specific conclusions.

Suppose, for example, that the question were, whether absolute kings were likely to employ the powers of government for the welfare or for the oppression of their subjects. The practicals would endeavour to determine this question by a direct induction from the conduct of particular despotic monarchs, as testified by history. The theorists would refer the question to be decided by the test not solely of our experience of kings, but of our experience of men. They would contend that an observation of the tendencies which

human nature has manifested in the variety of situations in which human beings have been placed, and especially observation of what passes in our own minds, warrants us in inferring that a human being in the situation of a despotic king will make a bad use of power; and that this conclusion would lose nothing of its certainty even if absolute kings had never existed, or if history furnished us with no information of the manner in which they had conducted themselves.

• The first of these methods is a method of induction, merely; the last a mixed method of induction and ratiocination. The first may be called the method *à posteriori*; the latter, the method *à priori*. We are aware that this last expression is sometimes used to characterize a supposed mode of philosophizing, which does not profess to be founded upon experience at all. But we are not acquainted with any mode of philosophizing, on political subjects at least, to which such a description is fairly applicable. By the method *à posteriori* we mean that which requires, as the basis of its conclusions, not experience merely, but specific experience. By the method *à priori* we mean (what has commonly been meant) reasoning from an assumed hypothesis; which is not a practice confined to mathematics, but is of the essence of all science which admits of general reasoning at all. To verify the hypothesis itself *à posteriori*, that is, to examine whether the facts of any actual case are in accordance with it, is no part of the business of science at all, but of the *application* of science.

In the definition which we have attempted to frame of the science of Political Economy, we have characterized it as essentially an *abstract* science, and its method as the method *à priori*. Such is undoubtedly its character as it has been understood and taught by

all its most distinguished teachers. It reasons, and, as we contend, must necessarily reason, from assumptions, not from facts. It is built upon hypotheses, strictly analogous to those which, under the name of definitions, are the foundation of the other abstract sciences. Geometry presupposes an arbitrary definition of a line, "that which has length but not breadth." Just in the same manner does Political Economy presuppose an arbitrary definition of man, as a being who invariably does that by which he may obtain the greatest amount of necessities, conveniences, and luxuries, with the smallest quantity of labour and physical self-denial with which they can be obtained in the existing state of knowledge. It is true that this definition of man is not formally prefixed to any work on Political Economy, as the definition of a line is prefixed to Euclid's Elements; and in proportion as by being so prefixed it would be less in danger of being forgotten, we may see ground for regret that this is not done. It is proper that what is assumed in every particular case, should once for all be brought before the mind in its full extent, by being somewhere formally stated as a general maxim. Now, no one who is conversant with systematic treatises on Political Economy will question, that whenever a political economist has shown that, by acting in a particular manner, a labourer may obviously obtain higher wages, a capitalist larger profits, or a landlord higher rent, he concludes, as a matter of course, that they will certainly act in that manner. Political Economy, therefore, reasons from *assumed* premises—from premises which might be totally without foundation in fact, and which are not pretended to be universally in accordance with it. The conclusions of Political Economy, consequently, like those of geometry, are only true, as the common phrase is, *in the*

*abstract*; that is, they are only true under certain suppositions, in which none but general causes—causes common to the *whole class* of cases under consideration—are taken into the account.

This ought not to be denied by the political economist. If he deny it, then, and then only, he places himself in the wrong. The *à priori* method which is laid to his charge, as if his employment of it proved his whole science to be worthless, is, as we shall presently show, the only method by which truth can possibly be attained in any department of the social science. All that is requisite is, that he be on his guard not to ascribe to conclusions which are grounded upon an hypothesis a different kind of certainty from that which really belongs to them. They would be true without qualification, only in a case which is purely imaginary. In proportion as the actual facts recede from the hypothesis, he must allow a corresponding deviation from the strict letter of his conclusion; otherwise it will be true only of things such as he has arbitrarily supposed, not of such things as really exist. That which is true in the abstract, is always true in the concrete with proper *allowances*. When a certain cause really exists, and if left to itself would infallibly produce a certain effect, that same effect, *modified* by all the other concurrent causes, will correctly correspond to the result really produced.

The conclusions of geometry are not strictly true of such lines, angles, and figures, as human hands can construct. But no one, therefore, contends that the conclusions of geometry are of no utility, or that it would be better to shut up Euclid's *Elements*, and content ourselves with "practice" and "experience."

No mathematician ever thought that his definition of a line corresponded to an actual line. As little did

any political economist ever imagine that real men had no object of desire but wealth, or none which would not give way to the slightest motive of a pecuniary kind. But they were justified in assuming this, for the purposes of their argument : because they had to do only with those parts of human conduct which have pecuniary advantage for their direct and principal object ; and because, as no two individual cases are exactly alike, no *general* maxims could ever be laid down unless *some* of the circumstances of the particular case were left out of consideration.

But we go farther than to affirm that the method *à priori* is a legitimate mode of philosophical investigation in the moral sciences ; we contend that it is the only mode. We affirm that the method *à posteriori*, or that of specific experience, is altogether inefficacious in those sciences, as a means of arriving at any considerable body of valuable truth ; though it admits of being usefully applied in aid of the method *à priori*, and even forms an indispensable supplement to it.

There is a property common to almost all the moral sciences, and by which they are distinguished from many of the physical ; this is, that it is seldom in our power to make experiments in them. In chemistry and natural philosophy, we can not only observe what happens under all the combinations of circumstances which nature brings together, but we may also try an indefinite number of new combinations. This we can seldom do in ethical, and scarcely ever in political science. We cannot try forms of government and systems of national policy on a diminutive scale in our laboratories, shaping our experiments as we think they may most conduce to the advancement of knowledge. We therefore study nature under circumstances of great disadvantage in these sciences ; being confined

to the limited number of experiments which take place (if we may so speak) of their own accord, without any preparation or management of ours; in circumstances, moreover, of great complexity, and never perfectly known to us; and with the far greater part of the processes concealed from our observation.

\* The consequence of this unavoidable defect in the materials of the induction is, that we can rarely obtain what Bacon has quaintly, but not unaptly, termed an *experimentum crucis*.

In any science which admits of an unlimited range of arbitrary experiments, an *experimentum crucis* may always be obtained. Being able to vary all the circumstances, we can always take effectual means of ascertaining which of them are, and which are not, material. Call the effect B, and let the question be whether the cause A in any way contributes to it. We try an experiment in which all the surrounding circumstances are altered, except A alone: if the effect B is nevertheless produced, A is the cause of it. Or, instead of leaving A, and changing the other circumstances, we leave all the other circumstances and change A: if the effect B in that case does *not* take place, then again A is a necessary condition of its existence. Either of these experiments, if accurately performed, is an *experimentum crucis*; it converts the presumption we had before of the existence of a connection between A and B into proof, by negating every other hypothesis which would account for the appearances.

But this can seldom be done in the moral sciences, owing to the immense multitude of the influencing circumstances, and our very scanty means of varying the experiment. Even in operating upon an individual mind, which is the case affording greatest room for



experimenting, we cannot often obtain a *crucial* experiment. The effect, for example, of a particular circumstance in education, upon the formation of character, may be tried in a variety of cases, but we can hardly ever be certain that any two of those cases differ in all their circumstances except the solitary one of which we wish to estimate the influence. In how much greater a degree must this difficulty exist in the affairs of states, where even the *number* of recorded experiments is so scanty in comparison with the variety and multitude of the circumstances concerned in each. How, for example, can we obtain a crucial experiment on the effect of a restrictive commercial policy upon national wealth? We must find two nations alike in every other respect, or at least possessed, in a degree exactly equal, of everything which conduces to national opulence, and adopting exactly the same policy in all their other affairs, but differing in this only, that one of them adopts a system of commercial restrictions, and the other adopts free trade. This would be a decisive experiment, similar to those which we can almost always obtain in experimental physics. Doubtless this would be the most conclusive evidence of all if we could get it. But let any one consider how infinitely numerous and various are the circumstances which either directly or indirectly do or may influence the amount of the national wealth, and then ask himself what are the probabilities that in the longest revolution of ages two nations will be found, which agree, and can be shown to agree, in all those circumstances except one?

Since, therefore, it is vain to hope that truth can be arrived at, either in Political Economy or in any other department of the social science, while we look at the facts in the concrete, clothed in all the complexity with which nature has surrounded them, and

endeavour to elicit a general law by a process of induction from a comparison of details; there remains no other method than the *à priori* one, or that of "abstract speculation."

Although sufficiently ample grounds are not afforded in the field of politics, for a satisfactory induction by a comparison of the effects, the causes may, in all cases, be made the subject of specific experiment. These causes are, laws of human nature, and external circumstances capable of exciting the human will to action. The desires of man, and the nature of the conduct to which they prompt him, are within the reach of our observation. We can also observe what are the objects which excite those desires. The materials of this knowledge every one can principally collect within himself; with reasonable consideration of the differences, of which experience discloses to him the existence, between himself and other people. Knowing therefore accurately the properties of the substances concerned, we may reason with as much certainty as in the most demonstrative parts of physics from any assumed set of circumstances. This will be mere trifling if the assumed circumstances bear no sort of resemblance to any real ones; but if the assumption is correct as far as it goes, and differs from the truth no otherwise than as a part differs from the whole, then the conclusions which are correctly deduced from the assumption constitute *abstract* truth; and when completed by adding or subtracting the effect of the non-calculated circumstances, they are true in the concrete, and may be applied to practice.

Of this character is the science of Political Economy in the writings of its best teachers. To render it perfect as an abstract science, the combinations of circumstances which it assumes, in order to trace their effects,

should embody all the circumstances that are common to all cases whatever, and likewise all the circumstances that are common to any important class of cases. The conclusions correctly deduced from these assumptions, would be as true in the abstract as those of mathematics; and would be as near an approximation as abstract truth can ever be, to truth in the concrete.

When the principles of Political Economy are to be applied to a particular case, then it is necessary to take into account all the individual circumstances of that case; not only examining to which of the sets of circumstances contemplated by the abstract science the circumstances of the case in question correspond, but likewise what other circumstances may exist in that case, which not being common to it with any large and strongly-marked class of cases, have not fallen under the cognizance of the science. These circumstances have been called *disturbing causes*. And here only it is that an element of uncertainty enters into the process—an uncertainty inherent in the nature of these complex phenomena, and arising from the impossibility of being quite sure that all the circumstances of the particular case are known to us sufficiently in detail, and that our attention is not unduly diverted from any of them.

This constitutes the only uncertainty of Political Economy; and not of it alone, but of the moral sciences in general. When the disturbing causes are known, the allowance necessary to be made for them detracts in no way from scientific precision, nor constitutes any deviation from the *à priori* method. The disturbing causes are not handed over to be dealt with by mere conjecture. Like *friction* in mechanics, to which they have been often compared, they may at first have been

considered merely as a non-assignable deduction to be made by guess from the result given by the general principles of science; but in time many of them are brought within the pale of the abstract science itself, and their effect is found to admit of as accurate an estimation as those more striking effects which they modify. The disturbing causes have their laws, as the causes which are thereby disturbed have theirs; and from the laws of the disturbing causes, the nature and amount of the disturbance may be predicted *à priori*, like the operation of the more general laws which they are said to modify or disturb, but with which they might more properly be said to be concurrent. The effect of the special causes is then to be added to, or subtracted from, the effect of the general ones.

These disturbing causes are sometimes circumstances which operate upon human conduct through the same principle of human nature with which Political Economy is conversant, namely, the desire of wealth, but which are not general enough to be taken into account in the abstract science. Of disturbances of this description every political economist can produce many examples. In other instances the disturbing cause is some other law of human nature. In the latter case it never can fall within the province of Political Economy; it belongs to some other science; and here the mere political economist, he who has studied no science but Political Economy, if he attempt to apply his science to practice, will fail.\*

\* One of the strongest reasons for drawing the line of separation clearly and broadly between science and art is the following:—That the principle of classification in science most conveniently follows the classification of *causes*, while arts must necessarily be classified according to the classification of the *effects*, the production of which is their appro-

As for the other kind of disturbing causes, namely those which operate through the same law of human nature out of which the general principles of the science arise, these might always be brought within the pale of the abstract science if it were worth while ; and when we make the necessary allowances for them in practice, if we are doing anything but guess, we are following out the method of the abstract science into minuter details ; inserting among its hypotheses a fresh and still more complex combination of circumstances, and so adding *pro hâc vice* a supplementary chapter or appendix, or at least a supplementary theorem, to the abstract science.

Having now shown that the method *à priori* in Political Economy, and in all the other branches of moral science, is the only certain or scientific mode of investigation, and that the *à posteriori* method, or that of specific experience, as a means of arriving at truth, is inapplicable to these subjects, we shall be able to show that the latter method is notwithstanding of great value in the moral sciences ; namely, not as a means of discovering truth, but of verifying it, and

private end. Now an effect, whether in physics or morals, commonly depends upon a concurrence of causes, and it frequently happens that several of these causes belong to different sciences. Thus in the construction of engines upon the principles of the science of *mechanics*, it is necessary to bear in mind the *chemical* properties of the material, such as its liability to oxydize ; its electrical and magnetic properties, and so forth. From this it follows that although the necessary foundation of all art is science, that is, the knowledge of the properties or laws of the objects upon which, and with which, the art does its work ; it is not equally true that every art corresponds to one particular science. Each art presupposes, not one science, but science in general ; or, at least, many distinct sciences.

reducing to the lowest point that uncertainty before alluded to as arising from the complexity of every particular case, and from the difficulty (not to say impossibility) of our being assured *à priori* that we have taken into account all the material circumstances.

If we could be quite certain that we knew all the facts of the particular case, we could derive little additional advantage from specific experience. The causes being given, we may know what will be their effect, without an actual trial of every possible combination; since the causes are human feelings, and outward circumstances fitted to excite them: and, as these for the most part are, or at least might be, familiar to us, we can more surely judge of their combined effect from that familiarity, than from any evidence which can be elicited from the complicated and entangled circumstances of an actual experiment. If the knowledge what are the particular causes operating in any given instance were revealed to us by infallible authority, then, if our abstract science were perfect, we should become prophets. But the causes are not so revealed: they are to be collected by observation; and observation in circumstances of complexity is apt to be imperfect. Some of the causes may lie beyond observation; many are apt to escape it, unless we are on the look-out for them; and it is only the habit of long and accurate observation which can give us so correct a preconception what causes we are likely to find, as shall induce us to look for them in the right quarter. But such is the nature of the human understanding, that the very fact of attending with intensity to one part of a thing, has a tendency to withdraw the attention from the other parts. We are consequently in great danger of adverting to a portion only

of the causes which are actually at work. And if we are in this predicament, the more accurate our deductions and the more certain our conclusions in the abstract (that is, making abstraction of all circumstances except those which form part of the hypothesis), the less we are likely to suspect that we are in error : for no one could have looked closely into the sources of fallacious thinking without being deeply conscious that the coherence, and neat concatenation of our philosophical systems, is more apt than we are commonly aware to pass with us as evidence of their truth.

We cannot, therefore, too carefully endeavour to verify our theory, by comparing, in the particular cases to which we have access, the results which it would have led us to predict, with the most trustworthy accounts we can obtain of those which have been actually realized. The discrepancy between our anticipations and the actual fact is often the only circumstance which would have drawn our attention to some important disturbing cause which we had overlooked. Nay, it often discloses to us errors in thought, still more serious than the omission of what can with any propriety be termed a disturbing cause. It often reveals to us that the basis itself of our whole argument is insufficient ; that the data, from which we had reasoned, comprise only a part, and not always the most important part, of the circumstances by which the result is really determined. Such oversights are committed by very good reasoners, and even by a still rarer class, that of good observers. It is a kind of error to which those are peculiarly liable whose views are the largest and most philosophical ; for exactly in that ratio are their minds more accustomed to dwell upon those laws, qualities, and tendencies, which are

common to large classes of cases, and which belong to all place and all time; while it often happens that circumstances almost peculiar to the particular case or era have a far greater share in governing that one case.

Although, therefore, a philosopher be convinced that no general truths can be attained in the affairs of nations by the *à posteriori* road, it does not the less behove him, according to the measure of his opportunities, to sift and scrutinize the details of every specific experiment. Without this, he may be an excellent professor of abstract science; for a person may be of great use who points out correctly what effects will follow from certain combinations of possible circumstances, in whatever tract of the extensive region of hypothetical cases those combinations may be found. He stands in the same relation to the legislator, as the mere geographer to the practical navigator; telling him the latitude and longitude of all sorts of places, but not how to find whereabouts he himself is sailing. If, however, he does no more than this, he must rest contented to take no share in practical politics; to have no opinion, or to hold it with extreme modesty, on the applications which should be made of his doctrines to existing circumstances.

No one who attempts to lay down propositions for the guidance of mankind, however perfect his scientific acquirements, can dispense with a practical knowledge of the actual modes in which the affairs of the world are carried on, and an extensive personal experience of the actual ideas, feelings, and intellectual and moral tendencies of his own country and of his own age. The true practical statesman is he who combines this experience with a profound knowledge



of abstract political philosophy. Either acquirement, without the other, leaves him lame and impotent if he is sensible of the deficiency ; renders him obstinate and presumptuous if, as is more probable, he is entirely unconscious of it.

Such, then, are the respective offices and uses of the *à priori* and the *à posteriori* methods—the method of abstract science, and that of specific experiment—as well in Political Economy, as in all the other branches of social philosophy. Truth compels us to express our conviction that whether among those who have written on these subjects, or among those for whose use they wrote, few can be pointed out who have allowed to each of these methods its just value, and systematically kept each to its proper objects and functions. One of the peculiarities of modern times, the separation of theory from practice—of the studies of the closet from the outward business of the world—has given a wrong bias to the ideas and feelings both of the student and of the man of business. Each undervalues that part of the materials of thought with which he is not familiar. The one despises all comprehensive views, the other neglects details. The one draws his notion of the universe from the few objects with which his course of life has happened to render him familiar ; the other having got demonstration on his side, and forgetting that it is only a demonstration *nisi*—a proof at all times liable to be set aside by the addition of a single new fact to the hypothesis—denies, instead of examining and sifting, the allegations which are opposed to him. For this he has considerable excuse in the worthlessness of the testimony on which the facts brought forward to invalidate the conclusions of theory usually rest. In these complex matters, men see with their preconceived opinions, not with their eyes: an

interested or a passionate man's statistics are of little worth; and a year seldom passes without examples of the astounding falsehoods which large bodies of respectable men will back each other in publishing to the world as facts within their personal knowledge. It is not because a thing is *asserted* to be true, but because in its nature it *may* be true, that a sincere and patient inquirer will feel himself called upon to investigate it. He will use the assertions of opponents not as evidence, but indications leading to evidence; suggestions of the most proper course for his own inquiries.

But while the philosopher and the practical man bandy half-truths with one another, we may seek far without finding one who, placed on a higher eminence of thought, comprehends as a whole what they see only in separate parts; who can make the anticipations of the philosopher guide the observation of the practical man, and the specific experience of the practical man warn the philosopher where something is to be added to his theory.

The most memorable example in modern times of a man who united the spirit of philosophy with the pursuits of active life, and kept wholly clear from the partialities and prejudices both of the student and of the practical statesman, was Turgot; the wonder not only of his age, but of history, for his astonishing combination of the most opposite, and, judging from common experience, almost incompatible excellences.

Though it is impossible to furnish any test by which a speculative thinker, either in Political Economy or in any other branch of social philosophy, may know that he is competent to judge of the application of his principles to the existing condition of his own or any other country, indications may be suggested by the absence of which he may well and surely know that he

is not competent. His knowledge must at least enable him to explain and account for what *is*, or he is an insufficient judge of what ought to be. If a political economist, for instance, finds himself puzzled by any recent or present commercial phenomena; if there is any mystery to him in the late or present state of the productive industry of the country, which his knowledge of principle does not enable him to unriddle; he may be sure that something is wanting to render his system of opinions a safe guide in existing circumstances. Either some of the facts which influence the situation of the country and the course of events are not known to him; or, knowing them, he knows not what ought to be their effects. In the latter case his system is imperfect even as an abstract system; it does not enable him to trace correctly all the consequences even of assumed premises. Though he succeed in throwing doubts upon the reality of some of the phenomena which he is required to explain, his task is not yet completed; even then he is called upon to show how the belief, which he deems unfounded, arose; and what is the real nature of the appearances which gave a colour of probability to allegations which examination proves to be untrue.

When the speculative politician has gone through this labour—has gone through it conscientiously, not with the desire of finding his system complete, but of making it so—he may deem himself qualified to apply his principles to the guidance of practice: but he must still continue to exercise the same discipline upon every new combination of facts as it arises; he must make a large allowance for the disturbing influence of unforeseen causes, and must carefully watch the result of every experiment, in order that any residuum of facts which his principles did not lead

him to expect, and do not enable him to explain, may become the subject of a fresh analysis, and furnish the occasion for a consequent enlargement or correction of his general views.

The method of the practical philosopher consists, therefore, of two processes; the one analytical, the other synthetical. He must *analyze* the existing state of society into its elements, not dropping and losing any of them by the way. After referring to the experience of individual man to learn the *law* of each of these elements, that is, to learn what are its natural effects, and how much of the effect follows from so much of the cause when not counteracted by any other cause, there remains an operation of *synthesis*; to put all these effects together, and, from what they are separately, to collect what would be the effect of all the causes acting at once. If these various operations could be correctly performed, the result would be prophecy; but as they can be performed only with a certain approximation to correctness, mankind can never predict with absolute certainty, but only with a less or greater degree of probability; according as they are better or worse apprised what the causes are,—have learnt with more or less accuracy from experience the law to which each of those causes, when acting separately, conforms,—and have summed up the aggregate effect more or less carefully.

With all the precautions which have been indicated there will still be some danger of falling into partial views; but we shall at least have taken the best securities against it. All that we can do more, is to endeavour to be impartial critics of our own theories, and to free ourselves, as far as we are able, from that reluctance from which few inquirers are altogether

exempt, to admit the reality or relevancy of any facts which they have not previously either taken into, or left a place open for in, their systems.

If indeed every phenomenon was generally the effect of no more than one cause, a knowledge of the law of that cause would, unless there was a logical error in our reasoning, enable us confidently to predict all the circumstances of the phenomenon. We might then, if we had carefully examined our premises and our reasoning, and found no flaw, venture to disbelieve the testimony which might be brought to show that matters had turned out differently from what we should have predicted. If the causes of erroneous conclusions were always patent on the face of the reasonings which lead to them, the human understanding would be a far more trustworthy instrument than it is. But the narrowest examination of the process itself will help us little towards discovering that we have omitted part of the premises which we ought to have taken into our reasoning. Effects are commonly determined by a *concurrence* of causes. If we have overlooked any one cause, we may reason justly from all the others, and only be the further wrong. Our premises will be true, and our reasoning correct, and yet the result of no value in the particular case. There is, therefore, almost always room for a modest doubt as to our practical conclusions. Against false premises and unsound reasoning, a good mental discipline may effectually secure us; but against the danger of *overlooking* something, neither strength of understanding nor intellectual cultivation can be more than a very imperfect protection. A person may be warranted in feeling confident, that whatever he has carefully contemplated with his mind's eye he has seen correctly; but no one can be sure that there is not

something in existence which he has not seen at all. He can do no more than satisfy himself that he has seen all that is visible to any other persons who have concerned themselves with the subject. For this purpose he must endeavour to place himself at their point of view, and strive earnestly to see the object as they see it; nor give up the attempt until he has either added the appearance which is floating before them to his own stock of realities, or made out clearly that it is optical deception.

The principles which we have now stated are by no means alien to common apprehension: they are not absolutely hidden, perhaps, from any one, but are commonly seen through a mist. We might have presented the latter part of them in a phraseology in which they would have seemed the most familiar of truisms: we might have cautioned inquirers against too extensive *generalization*, and reminded them that there are *exceptions* to all rules. Such is the current language of those who distrust comprehensive thinking, without having any clear notion why or where it ought to be distrusted. We have avoided the use of these expressions purposely, because we deem them superficial and inaccurate. The error, when there is error, does *not* arise from generalizing too extensively; that is, from including too wide a range of particular cases in a single proposition. Doubtless, a man often asserts of an entire class what is only true of a part of it; but his error generally consists not in making too wide an assertion, but in making the wrong *kind* of assertion: he predicated an actual result, when he should only have predicated a *tendency* to that result—a power acting with a certain intensity in that direction. With regard to *exceptions*; in any

rably advanced science there is properly no such thing as an exception. What is thought to be an exception to a principle is always some other and distinct principle cutting into the former: some other force which impinges against the first force, and deflects it from its direction. There are not a *law* and an *exception* to that law—the law acting in ninety-nine cases, and the exception in one. There are two laws, each possibly acting in the whole hundred cases, and bringing about a common effect by their conjunct operation. If the force which, being the less conspicuous of the two, is called the disturbing force, prevails sufficiently over the other force in some one case, to constitute that case what is commonly called an exception, the same disturbing force probably acts as a modifying cause in many other cases which no one will call exceptions.

Thus if it were stated to be a law of nature, that all heavy bodies fall to the ground, it would probably be said that the resistance of the atmosphere, which prevents a balloon from falling, constitutes the balloon an exception to that pretended law of nature. But the real law is, that all heavy bodies *tend* to fall; and to this there is no exception, not even the sun and moon; for even they, as every astronomer knows, tend towards the earth, with a force exactly equal to that with which the earth tends towards them. The resistance of the atmosphere might, in the particular case of the balloon, from a misapprehension of what the law of gravitation is, be said to *prevail* over the law; but its disturbing effect is quite as real in every other case, since though it does not prevent, it retards the fall of all bodies whatever. The rule, and the so-called exception, do not divide the cases between them; each of them is a comprehensive rule extend-

ing to all cases. To call one of these concurrent principles an exception to the other, is superficial, and contrary to the correct principles of nomenclature and arrangement. An effect of precisely the same kind, and arising from the same cause, ought not to be placed in two different categories, merely as there does or does not exist another cause preponderating over it.

It is only in art, as distinguished from science, that we can with propriety speak of exceptions. Art, the immediate end of which is practice, has nothing to do with causes, except as the means of bringing about effects. However heterogeneous the causes, it carries the effects of them all into one single reckoning, and according as the sum-total is *plus* or *minus*, according as it falls above or below a certain line, Art says, Do this, or Abstain from doing it. The exception does not run by insensible degrees into the rule, like what are called exceptions in science. In a question of practice it frequently happens that a certain thing is either fit to be done, or fit to be altogether abstained from, there being no medium. If, in the majority of cases, it is fit to be done, that is made the rule. When a case subsequently occurs in which the thing ought not to be done, an entirely new leaf is turned over; the rule is now done with, and dismissed: a new train of ideas is introduced, between which and those involved in the rule there is a broad line of demarcation; as broad and *tranchant* as the difference between Ay and No. Very possibly, between the last case which comes within the rule and the first of the exception, there is only the difference of a shade: but that shade probably makes the whole interval between acting in one way and in a totally different one. We may, therefore, in talking of art, unobjectionably speak



of the *rule* and the *exception* ; meaning by the rule, the cases in which there exists a preponderance, however slight, of inducements for acting in a particular way ; and by the exception, the cases in which the preponderance is on the contrary side.

THE END.

*WORKS BY THE SAME AUTHOR.*

THREE ESSAYS ON RELIGION:  
NATURE; THE UTILITY OF RELIGION; THEISM.

Fourth Edition. Octavo, price 10s. 6d.

AUTOBIOGRAPHY.

Fifth Edition. Octavo, price 7s. 6d.

A SYSTEM OF LOGIC, RATIOCINATIVE AND INDUCTIVE.

Ninth Edition. Two volumes. Octavo, price 25s.

ESSAYS ON SOME UNSETTLED QUESTIONS OF  
POLITICAL ECONOMY.

Second Edition. Octavo, price 6s. 6d.

PRINCIPLES OF POLITICAL ECONOMY.

Seventh Edition. Two volumes. Octavo, price 30s.

People's Edition. Crown octavo, price 5s.

ON LIBERTY.

Fifth Edition, price 7s. 6d.

People's Edition, price 1s. 4d.

THOUGHTS ON PARLIAMENTARY REFORM.

Second Edition, price 1s. 6d.

DISSERTATIONS AND DISCUSSIONS.

Third Edition. Four volumes. Octavo, price 47s.

Vol. IV. separately, price 10s. 6d.

CONSIDERATIONS ON REPRESENTATIVE GOVERNMENT.

Third Edition. Octavo, price 9s.

People's Edition. Crown octavo, price 2s.

UTILITARIANISM.

Sixth Edition. Octavo, price 5s.

EXAMINATION OF SIR WILLIAM HAMILTON'S  
PHILOSOPHY.

Fourth Edition. Octavo, price 16s.

*WORKS BY THE SAME AUTHOR—continued.*

**INAUGURAL ADDRESS AT THE UNIVERSITY OF  
ST. ANDREWS.**

Second Edition. Octavo, price 6s.

People's Edition. Crown octavo, price 1s.

---

**ENGLAND AND IRELAND.**

Fifth Edition. Octavo, price 1s.

---

**THE SUBJECTION OF WOMEN.**

Third Edition. Post octavo, price 5s.

---

**CHAPTERS AND SPEECHES ON THE IRISH LAND  
QUESTION.**

Crown octavo, price 2s. 6d.

---

**PROGRAMME OF THE LAND TENURE REFORM  
ASSOCIATION.**

With an Explanatory Statement.

Price SIXPENCE.

---

**ANALYSIS OF THE PHENOMENA OF THE HUMAN MIND.**

By JAMES MILL.

A New Edition, accompanied by Notes, illustrative and critical.

By ALEXANDER BAIN, ANDREW FINDLATER, and GEORGE GROTH.

Edited, with additional Notes, by JOHN STUART MILL.

Two volumes. Octavo, price 28s.

---

**A FRAGMENT ON MACKINTOSH.**

By JAMES MILL.

Octavo, price 9s.

---

London: LONGMANS & Co., Paternoster Row.

**AUGUSTE COMTE AND POSITIVISM.**

By JOHN STUART MILL.

London: N. TRÜBNER & Co., 57 & 59 Ludgate Hill.





MARCH 1877

---

# CLASSIFIED LISTS OF BOOKS

(NEW WORKS AND NEW EDITIONS)

IN

## MISCELLANEOUS

AND

## GENERAL LITERATURE

FOLLOWED BY

AN ALPHABETICAL INDEX UNDER AUTHORS' NAMES



London

Longmans, Green & Co.

Paternoster Row

1877.

## ANCIENT HISTORICAL EPOCHS.

Now in course of publication, uniform with EPOCHS of MODERN HISTORY;  
each volume complete in itself,

# EPOCHS OF ANCIENT HISTORY:

*A Series of Books Narrating the History of Greece and Rome and of their  
Relations to other Countries at Successive Epochs.*

Edited by the Rev. GEORGE W. COX, M.A. late Scholar of Trin. Coll. Oxford;  
and jointly by CHARLES SANKEY, M.A. late Scholar of Queen's Coll. Oxford.

'The special purpose for which these manuals are intended, they will, we should think, admirably serve. Their clearness as narratives will make them acceptable to the schoolboy as well as to the teacher; and their critical acumen will commend them to the use of the more advanced student who is not only getting up, but trying to understand and appreciate, his HERODOTUS and THUCYDIDES. As for the general plan of the series of which they form part, we must confess, without wishing to draw comparisons for which we should be sorry to

have to examine all the materials, that it strikes us as decidedly sensible. For the beginner, at all events, the most instructive, as it is the easiest and most natural, way of studying history is to study it by periods; and with regard to earlier Greek and Roman history at all events, there is no serious obstacle in the way of his being enabled to do so, since here period and what has come to be quasi-technically called subject frequently coincide, and form what may fairly be called an Epoch of Ancient History.'

SATURDAY REVIEW.

**The GREEKS and the PERSIANS.** By the Rev. G. W. Cox, M.A. late Scholar of Trinity College, Oxford; Joint-Editor of the Series. With 4 Coloured Maps. Fcp. 8vo. price 2s. 6d.

**The EARLY ROMAN EMPIRE.** From the Assassination of Julius Cæsar to the Assassination of Domitian. By the Rev. W. WOLFE CAPES, M.A. Reader of Ancient History in the University of Oxford. With 2 Coloured Maps. Fcp. 8vo. price 2s. 6d.

**ROME to its CAPTURE by the GAULS.** By Wilhelm Ihne, Author of 'History of Rome.' With a Coloured Map. Fcp. 8vo. price 2s. 6d.

**The ATHENIAN EMPIRE from the FLIGHT of XERXES to the FALL of ATHENS.** By the Rev. G. W. Cox, M.A. late Scholar of Trinity College, Oxford; Joint-Editor of the Series. With 5 Maps. Fcp. 8vo. price 2s. 6d.

**The ROMAN TRIUMVIRATES.** By the Very Rev. Charles Merivale, D.D. Dean of Ely; Author of 'History of the Romans under the Empire.' With a Coloured Map. Fcp. 8vo. price 2s. 6d.

**The ROMAN EMPIRE of the SECOND CENTURY, or the AGE of the ANTONINES.** By the Rev. W. WOLFE CAPES, M.A. Reader of Ancient History in the University of Oxford. With 2 Coloured Maps. Fcp. 8vo. price 2s. 6d.

**The RISE of the MACEDONIAN EMPIRE.** By Arthur M. Curteis, M.A. formerly Fellow of Trinity College, Oxford, and late Assistant-Master in Sherborne School. With 8 Maps. Fcp. 8vo. price 2s. 6d.

**The GRACCHI, MARIUS, and SULLA.** By A. H. Beesly, M.A. Assistant-Master, Marlborough College. With 2 Maps. Fcp. 8vo. price 2s. 6d.

**ROME and CARTHAGE, the PUNIC WARS.** By R. Bosworth Smith, M.A. Assistant-Master, Harrow School. *[In the press.]*

**SPARTAN and THEBAN SUPREMACY.** By Charles Sankey, M.A. late Scholar of Queen's College, Oxford; Assistant-Master, Marlborough College; Joint-Editor of *[In the press.]*

London, LONGMANS & CO.

# GENERAL LIST OF WORKS

PUBLISHED BY

MESSRS. LONGMANS, GREEN, & CO.

	PAGE		
ARTS, MANUFACTURES, &c. . . . .	15	MENTAL & POLITICAL PHILOSOPHY	5
ASTRONOMY & METEOROLOGY . . . . .	10	MISCELLANEOUS & CRITICAL WORKS	7
BIOGRAPHICAL WORKS . . . . .	4	NATURAL HISTORY & PHYSICAL	
CHEMISTRY & PHYSIOLOGY . . . . .	14	SCIENCE . . . . .	11
DICTIONARIES & other BOOKS of		POETRY & the DRAMA . . . . .	21
REFERENCE . . . . .	8	RELIGIOUS & MORAL WORKS . . . . .	16
FINE ARTS & ILLUSTRATED EDI-		RURAL SPORTS, HORSE & CATTLE	
TIONS . . . . .	14	MANAGEMENT, &c. . . . .	22
HISTORY, POLITICS, HISTORICAL		TRAVELS, VOYAGES, &c. . . . .	19
MEMOIRS, &c. . . . .	1	WORKS of FICTION . . . . .	20
INDEX . . . . .	25 to 28	WORKS of UTILITY & GENERAL	
		INFORMATION . . . . .	23

## HISTORY, POLITICS, HISTORICAL MEMOIRS, &c.

**Sketches of Ottoman**  
**History.** By the Very Rev. R. W.  
CHURCH, Dean of St. Paul's. 1 vol.  
crown 8vo. [*Nearly ready.*]

**The Eastern Question.**  
By the Rev. MALCOLM MACCOLL,  
M.A. 8vo. [*Nearly ready.*]

**The History of England**  
**from the Accession of James II.**  
By the Right Hon. Lord MACAULAY.

STUDENT'S EDITION, 2 vols. cr. 8vo. 12s.  
PEOPLE'S EDITION, 4 vols. cr. 8vo. 16s.  
CABINET EDITION, 8 vols. post 8vo. 48s.  
LIBRARY EDITION, 5 vols. 8vo. £4.

**Critical and Historical**  
**Essays contributed to the Edin-**  
**burgh Review.** By the Right Hon.  
Lord MACAULAY.

CHEAP EDITION, crown 8vo. 3s. 6d.  
STUDENT'S EDITION, crown 8vo. 6s.  
PEOPLE'S EDITION, 2 vols. crown 8vo. 8s.  
CABINET EDITION, 4 vols. 24s.  
LIBRARY EDITION, 3 vols. 8vo. 36s.

## Lord Macaulay's Works.

Complete and uniform Library Edition.  
Edited by his Sister, Lady TREVELYAN.  
8 vols. 8vo. with Portrait, £5. 5s.



## **The History of England**

from the Fall of Wolsey to the Defeat of the Spanish Armada. By J. A. FROUDE, M.A.

CABINET EDITION, 12 vols. cr. 8vo. £3. 12s.

LIBRARY EDITION, 12 vols. 8vo. £8. 18s.

## **The English in Ireland**

in the Eighteenth Century. By J. A. FROUDE, M.A. 3 vols. 8vo. £2. 8s.

## **Journal of the Reigns of**

**King George IV. and King William IV.** By the late C. C. F. GREVILLE, Esq. Edited by H. REEVE, Esq. Fifth Edition. 3 vols. 8vo. price 36s.

## **The Life of Napoleon III.**

derived from State Records, Unpublished Family Correspondence, and Personal Testimony. By BLANCHARD JERROLD. In Four Volumes, 8vo. with numerous Portraits and Facsimiles. VOLS. I. and II. price 18s. each.

\*\*\* The Third Volume is in the press.

## **Introductory Lectures on**

**Modern History** delivered in Lent Term 1842; with the Inaugural Lecture delivered in December 1841. By the late Rev. T. ARNOLD, D.D. 8vo. price 7s. 6d.

## **On Parliamentary Go-**

**vernment in England;** its Origin, Development, and Practical Operation. By ALPHEUS TODD. 2 vols. 8vo. price £1. 17s.

## **The Constitutional His-**

**tory of England since the Accession of George III. 1760-1870.** By Sir THOMAS ERSKINE MAY, K.C.B. D.C.L. Fifth Edition. 3 vols. crown 8vo. 18s.

## **Democracy in Europe ;**

a History. By Sir THOMAS ERSKINE MAY, K.C.B. D.C.L. 2 vols. 8vo.

[*In the press.*]

## **History of Civilisation in**

**England and France, Spain and Scotland.** By HENRY THOMAS BUCKLE. 3 vols. crown 8vo. 24s.

## **Lectures on the History**

**of England from the Earliest Times to the Death of King Edward II.** By W. LONGMAN, F.S.A. Maps and Illustrations. 8vo. 15s.

## **History of the Life &**

**Times of Edward III.** By W. LONGMAN, F.S.A. With 9 Maps, 8 Plates, and 16 Woodcuts. 2 vols. 8vo. 28s.

## **The Life of Simon de**

**Montfort, Earl of Leicester,** with special reference to the Parliamentary History of his time. By GEORGE WALTER PROTHERO, Fellow and Lecturer in History, King's College, Cambridge. Crown 8vo. 9s.

## **History of England under**

**the Duke of Buckingham and Charles the First, 1624-1628.** By S. R. GARDINER, late Student of Ch. Ch. 2 vols. 8vo. with 2 Maps, 24s.

## **The Personal Govern-**

**ment of Charles I. from the Death of Buckingham to the Declaration of the Judges in favour of Ship Money, 1628-1637.** By S. R. GARDINER, late Student of Ch. Ch. 2 vols. 8vo.

[*In the press.*]

## **Popular History of**

**France, from the Earliest Times to the Death of Louis XIV.** By ELIZABETH M. SEWELL. With 8 Maps. Crown 8vo. 7s. 6d.

## **History of Prussia, from**

the Earliest Times to the Present Day; tracing the Origin and Development of her Military Organisation. By Capt. W. J. WYATT. VOLS. I. & II. A.D. 700 to A.D. 1525. 8vo. 36s.

## **A Student's Manual of**

**the History of India from the Earliest Period to the Present.** By Col. MEADOWS TAYLOR, M.R.A.S. Second Thousand. Crown 8vo. Maps, 7s. 6d.

## **Indian Polity; a View of**

the System of Administration in India. By Lieut.-Col. G. CHESNEY. 2nd Edition, revised, with Map. 8vo. 21s.

## **Essays in Modern Mili-**

**tary Biography.** By Col. C. C. CHESNEY, R.E. 8vo. 12s. 6d.

**Waterloo Lectures; a**  
Study of the Campaign of 1815. By  
Col. C. C. CHESNEY, R.E. Third  
Edition. 8vo. Map, 10s. 6d.

**The Oxford Reformers—**  
John Colet, Erasmus, and Thomas  
More; being a History of their Fel-  
low-Work. By F. SEEBOHM. Second  
Edition. 8vo. 14s.

**The Mythology of the**  
**Aryan Nations.** By the Rev. G. W.  
Cox, M.A. late Scholar of Trinity  
College, Oxford. 2 vols. 8vo. 28s.

**A History of Greece.** By  
the Rev. G. W. Cox, M.A. VOLS. I.  
& II. 8vo. Maps, 36s.

**General Hist. of Greece**  
to the Death of Alexander the Great;  
with a Sketch of the Subsequent His-  
tory to the Present Time. By the Rev.  
G. W. Cox, M.A. Crown 8vo. with  
Maps, 7s. 6d.

**General History of Rome**  
from the Foundation of the City to the  
Fall of Augustulus, B.C. 753-A.D.  
476. By Dean MERIVALE, D.D.  
Crown 8vo. Maps, 7s. 6d.

**History of the Romans**  
**under the Empire.** By Dean MERI-  
VALE, D.D. 8 vols. post 8vo. 48s.

**The Fall of the Roman**  
**Republic; a Short History of the Last**  
Century of the Commonwealth. By  
Dean MERIVALE, D.D. 12mo. 7s. 6d.

**The History of Rome.**  
By WILHELM IHNE. VOLS. I. & II.  
8vo. 30s. VOL. III. is in the press.

**The Sixth Oriental Mo-**  
**narchy; or, the Geography, History,**  
and Antiquities of Parthia. By G.  
RAWLINSON, M.A. With Maps and  
Illustrations. 8vo. 16s.

**The Seventh Great Ori-**  
**ental Monarchy; or, a History of**  
the Sassanians. By G. RAWLINSON,  
M.A. With Map and 95 Illustrations.  
8vo. 28s.

**Encyclopædia of Chro-**  
**nology,** Historical and Biographical;  
comprising the Dates of all the Great  
Events of History, including Treaties,  
Alliances, Wars, Battles, &c. By B.  
B. WOODWARD, B.A. and W. L. R.  
CATES. 8vo. 42s.

**The History of European**  
**Morals** from Augustus to Charle-  
magne. By W. E. H. LECKY, M.A.  
2 vols. crown 8vo. 16s.

**History of the Rise and**  
**Influence of the Spirit of Rational-**  
**ism in Europe.** By W. E. H. LECKY,  
M.A. 2 vols. crown 8vo. 16s.

**The Native Races of the**  
**Pacific States of North America.** By  
H. H. BANCROFT. 5 vols. 8vo. £6. 5s.

**History of the Mongols**  
from the Ninth to the Nineteenth  
Century. By HENRY H. HOWORTH,  
F.S.A. VOL. I. *the Mongols Proper*  
*and the Kalmuks; with Two Coloured*  
Maps. Royal 8vo. 28s.

**Islam under the Arabs.**  
By ROBERT DURIE OSBORN, Major  
in the Bengal Staff Corps. 8vo. 12s.

**Introduction to the Sci-**  
**ence of Religion,** Four Lectures de-  
livered at the Royal Institution; with  
Two Essays on False Analogies and the  
Philosophy of Mythology. By MAX  
MÜLLER, M.A. Crown 8vo. 10s. 6d.

**Zeller's Stoics, Epicu-**  
**reans, and Sceptics.** Translated by the  
Rev. O. J. REICHEL, M.A. Cr. 8vo. 14s.

**Zeller's Socrates & the**  
**Socratic Schools.** Translated by the  
Rev. O. J. REICHEL, M.A. Crown  
8vo. New Edition in the press.

**Zeller's Plato & the Older**  
**Academy.** Translated by S. FRANCES  
ALLEYNE and ALFRED GOODWIN,  
B.A. Crown 8vo. 18s.

**Sketch of the History of**  
**the Church of England to the Revo-**  
lution of 1688. By T. V. SHORT,  
D.D. sometime Bishop of St. Asaph.  
Crown 8vo. 7s. 6d.

**The History of Philosophy**, from Thales to Comte. By GEORGE HENRY LEWES. Fourth Edition. 2 vols. 8vo. 32s.

**The Childhood of the English Nation**; or, the Beginnings of English History. By ELLA S. ARMITAGE. Fcp. 8vo. 2s. 6d.

**Epochs of Modern History**. Edited by E. E. MORRIS, M.A. J. S. PHILLPOTTS, B.C.I., and C. COLBECK, M.A. Eleven volumes now published, each complete in itself, in fcp. 8vo. with Maps & Index :—

**Cox's Crusades**, 2s. 6d.

**Creighton's Age of Elizabeth**, 2s. 6d.

**Gairdner's Houses of Lancaster and York**, 2s. 6d.

**Gardiner's Puritan Revolution**, 2s. 6d.

**Gardiner's Thirty Years' War**, 2s. 6d.

**Hale's Fall of the Stuarts**, 2s. 6d.

**Ludlow's War of American Independence**, 2s. 6d.

**Morris's Age of Anne**, 2s. 6d.

**Seeborn's Protestant Revolution**, price 2s. 6d.

**Stubbs's Early Plantagenets**, 2s. 6d.

**Warburton's Edward III.** 2s. 6d.

\* \* Other Epochs in preparation, in continuation of the Series.

**The Student's Manual of Modern History**; containing the Rise and Progress of the Principal European Nations. By W. COOKE TAYLOR, LL.D. Crown 8vo. 7s. 6d.

**The Student's Manual of Ancient History**; containing the Political History, Geographical Position, and Social State of the Principal Nations of Antiquity. By W. COOKE TAYLOR, LL.D. Crown 8vo. 7s. 6d.

**Epochs of Ancient History**. Edited by the Rev. G. W. COX, M.A. and by C. SANKLY, M.A. Ten volumes, each complete in itself, in fcp. 8vo. with Maps & Index :—

**Beesly's Gracchi, Marius & Sulla**, 2s. 6d.

**Capes's Age of the Antonines**, 2s. 6d.

**Capes's Early Roman Empire**, 2s. 6d.

**Cox's Athenian Empire**, 2s. 6d.

**Cox's Greeks & Persians**, 2s. 6d.

**Curteis's Macedonian Empire**, 2s. 6d.

**Ihne's Rome to its Capture by the Gauls**, 2s. 6d.

**Merivale's Roman Triumvirates**, 2s. 6d.

**Sankey's Spartan & Theban Supremacy**. [*In the press.*]

**Smith's Rome & Carthage, the Punic Wars**. [*In the press.*]

## BIOGRAPHICAL WORKS.

**The Life and Letters of Lord Macaulay**. By his Nephew, G. OTTO TREVELYAN, M.P. Second Edition, with Additions and Corrections. 2 vols. 8vo. Portrait, 36s.

**The Life of Sir William Fairbairn, Bart. F.R.S.** Partly written by himself; edited and completed by W. POLE, F.R.S. 8vo. Portrait, 18s.

**Arthur Schopenhauer, his Life and his Philosophy**. By HELEN ZIMMERN. Post 8vo. Portrait, 7s. 6d.

**The Life, Works, and Opinions of Heinrich Heine**. By WILLIAM STIGAND. 2 vols. 8vo. Portrait, 28s.

**The Life and Letters of Mozart**. Translated from the German Biography of Dr. LUDWIG NOHL by Lady WALLACE. 2 vols. post 8vo. with Two Portraits. [*Nearly ready.*]

**Felix Mendelssohn's Letters from Italy and Switzerland, and Letters from 1833 to 1847**. Translated by Lady WALLACE. With Portrait. 2 vols. crown 8vo. 5s. each.

**Life of Robert Frampton,**  
D.D. Bishop of Gloucester, deprived as  
a Non-Juror in 1689. Edited by T. S.  
EVANS, M.A. Vicar of Shoreditch.  
Crown 8vo. Portrait, 10s. 6d.

**Autobiography.** By JOHN  
STUART MILL. 8vo. 7s. 6d.

**Isaac Casaubon, 1559-  
1614.** By MARK PATTISON, Rector  
of Lincoln College, Oxford. 8vo. 18s.

**Biographical and Critical  
Essays.** By A. HAYWARD, Q.C.  
Second Series, 2 vols. 8vo. 28s. Third  
Series, 1 vol. 8vo. 14s.

**The Memoirs of Sir John  
Reresby, of Thrybergh, Bart. M.P.  
1634-1689.** Edited from the Original  
Manuscript by J. J. CARTWRIGHT,  
M.A. 8vo. 21s.

**Leaders of Public Opin-  
ion in Ireland; Swift, Flood,  
Grattan, O'Connell.** By W. E. H.  
LECKY, M.A. Crown 8vo. 7s. 6d.

**Essays in Ecclesiastical  
Biography.** By the Right Hon. Sir J.  
STEPHEN, LL.D. Crown 8vo. 7s. 6d.

**Dictionary of General  
Biography;** containing Concise Me-  
moirs and Notices of the most Eminent  
Persons of all Ages and Countries.  
By W. L. R. CATES. 8vo. 25s.

**Life of the Duke of Wel-  
lington.** By the Rev. G. R. GLEIG,  
M.A. Crown 8vo. Portrait, 5s.

**Memoirs of Sir Henry  
Havelock, K.C.B.** By JOHN CLARK  
MARSHMAN. Crown 8vo. 3s. 6d.

**Vicissitudes of Families.**  
By Sir BERNARD BURKE, C.B. Two  
vols. crown 8vo. 21s.

**Maunder's Biographical  
Treasury.** Latest Edition, recon-  
structed and partly re-written, with  
above 1,000 additional Memoirs, by  
W. L. R. CATES. Fcp. 8vo. 6s.

## MENTAL and POLITICAL PHILOSOPHY.

**Comte's System of Posi-  
tive Polity, or Treatise upon Socio-  
logy.** Translated from the Paris  
Edition of 1851-1854, and furnished  
with Analytical Tables of Contents :—

VOL. I. **General View of Positivism and  
Introductory Principles.** Translated by  
J. H. BRIDGES, M.B., formerly Fellow  
of Oriol College, Oxford. 8vo. price 21s.

VOL. II. **The Social Statics, or the  
Abstract Laws of Human Order.** Trans-  
lated by FREDERIC HARRISON, M.A.  
8vo. price 14s.

VOL. III. **The Social Dynamics, or  
the General Laws of Human Progress (the  
Philosophy of History).** Translated by  
Professor BEESLY, M.A. 8vo. 21s.

VOL. IV. **The Synthesis of the Future  
of Mankind.** Translated by RICHARD  
CONGREVE, M.D. with an Appendix,  
containing Comte's Early Essays, trans-  
lated by H. D. HUTTON, B.A. 8vo.  
[Nearly ready.]

**Democracy in America.**  
By ALEXIS DE TOCQUEVILLE. Tran-  
slated by HENRY REEVE, Esq. Two  
vols. crown 8vo. 16s.

**Essays, Critical and Bio-  
graphical.** By HENRY ROGERS. 2  
vols. crown 8vo. 12s.

**Essays on some Theolo-  
gical Controversies of the Time.**  
By HENRY ROGERS. Crown 8vo. 6s.

**On Representative Go-  
vernment.** By JOHN STUART MILL.  
Crown 8vo. 2s.

**On Liberty.** By JOHN  
STUART MILL. Post 8vo. 7s. 6d.  
crown 8vo. 1s.

**Principles of Political  
Economy.** By JOHN STUART MILL.  
2 vols. 8vo. 30s. or 1 vol. crown 8vo. 5s.

**Essays on some Unset-  
tled Questions of Political Economy.**  
By JOHN STUART MILL. 8vo. 6s. 6d.

**Utilitarianism.** By JOHN  
STUART MILL. 8vo. 5s.

**A System of Logic, Ratiocinative and Inductive.** By JOHN STUART MILL. 2 vols. 8vo. 25s.

**Examination of Sir William Hamilton's Philosophy,** and of the principal Philosophical Questions discussed in his Writings. By JOHN STUART MILL. 8vo. 16s.

**Dissertations and Discussions.** By JOHN STUART MILL. 4 vols. 8vo. price £2. 6s. 6d.

**Analysis of the Phenomena of the Human Mind.** By JAMES MILL. With Notes, Illustrative and Critical. 2 vols. 8vo. 28s.

**The Law of Nations considered as Independent Political Communities;** the Rights and Duties of Nations in Time of War. By Sir TRAVERS TWISS, D.C.L. 8vo. 21s.

**Church and State; their Relations Historically Developed.** By H. GEFFCKEN, Prof. of International Law in the Univ. of Strasburg. Translated, with the Author's assistance, by E. F. TAYLOR. 2 vols. 8vo. 42s.

**A Systematic View of the Science of Jurisprudence.** By SHELDON AMOS, M.A. 8vo. 18s.

**A Primer of the English Constitution and Government.** By S. AMOS, M.A. Crown 8vo. 6s.

**Outlines of Civil Procedure;** a General View of the Supreme Court of Judicature and of the whole Practice in the Common Law and Chancery Divisions. By E. S. ROSCOE, Barrister-at-Law. 12mo. 3s. 6d.

**A Sketch of the History of Taxes in England** from the Earliest Times to the Present Day. By STEPHEN DOWELL. VOL. I. to the Civil War 1642. 8vo. 10s. 6d.

**Principles of Economical Philosophy.** By H. D. MACLEOD, M.A. Barrister-at-Law. Second Edition in Two Volumes. VOL. I. 8vo. 15s. VOL. II. PART I. price 12s.

**The Institutes of Justinian;** with English Introduction, Translation, and Notes. By T. C. SANDARS, M.A. 8vo. 18s.

**Lord Bacon's Works,** collected & edited by R. L. ELLIS, M.A. J. SPEDDING, M.A. and D. D. HEATH. 7 vols. 8vo. £3. 13s. 6d.

**Letters and Life of Francis Bacon,** including all his Occasional Works. Collected and edited, with a Commentary, by J. SPEDDING. 7 vols. 8vo. £4. 4s.

**The Nicomachean Ethics** of Aristotle, newly translated into English by R. WILLIAMS, B.A. Second Edition, thoroughly revised. Crown 8vo. 7s. 6d.

**Aristotle's Politics, Books I. III. IV. (VII.)** the Greek Text of Bekker, with an English Translation by W. E. BOLLAND, M.A. and Short Introductory Essays by A. LANG, M.A. Crown 8vo. 7s. 6d.

**The Politics of Aristotle;** Greek Text, with English Notes. By RICHARD CONGREVE, M.A. 8vo. 18s.

**The Ethics of Aristotle;** with Essays and Notes. By Sir A. GRANT, Bart. M.A. LL.D. 2 vols. 8vo. 32s.

**Bacon's Essays,** with Annotations. By R. WHATELY, D.D. 8vo. 10s. 6d.

**Picture Logic;** an Attempt to Popularise the Science of Reasoning. By A. SWINBOURNE, B.A. Fcp. 8vo. price 5s.

**Elements of Logic.** By R. WHATELY, D.D. 8vo. 10s. 6d. Crown 8vo. 4s. 6d.

**Elements of Rhetoric.** By R. WHATELY, D.D. 8vo. 10s. 6d. Crown 8vo. 4s. 6d.

**An Introduction to Mental Philosophy**, on the Inductive Method. By J. D. MORELL, LL.D. 8vo. 12s.

**Philosophy without Assumptions.** By the Rev. T. P. KIRKMAN, F.R.S. 8vo. 10s. 6d.

**The Senses and the Intellect.** By A. BAIN, LL.D. 8vo. 15s.

**The Emotions and the Will.** By A. BAIN, LL.D. 8vo. 15s.

**Mental and Moral Science**; a Compendium of Psychology and Ethics. By A. BAIN, LL.D. Crown 8vo. 10s. 6d. Or separately, PART I. Mental Science, 6s. 6d. PART II. Moral Science, 4s. 6d.

**An Outline of the Necessary Laws of Thought**: a Treatise on Pure and Applied Logic. By W. THOMPSON, D.D. Archbishop of York. Crown 8vo. 6s.

**On the Influence of Authority in Matters of Opinion.** By the late Sir. G. C. LEWIS, Bart. 8vo. 14s.

**Hume's Treatise on Human Nature.** Edited, with Notes, &c. by T. H. GREEN, M.A. and the Rev. T. H. GROSE, M.A. 2 vols. 8vo. 28s.

**Hume's Essays, Moral, Political, and Literary.** By the same Editors. 2 vols. 8vo. 28s.

\* \* \* The above form a complete and uniform Edition of HUME's Philosophical Works.

## MISCELLANEOUS & CRITICAL WORKS.

**Selections from the Writings of Lord Macaulay.** Edited, with Occasional Explanatory Notes, by G. O. TREVELYAN, M.P. Cr. 8vo. 6s.

**Lord Macaulay's Miscellaneous Writings.**

LIBRARY EDITION, 2 vols. 8vo. 21s.

PEOPLE'S EDITION, 1 vol. cr. 8vo. 4s. 6d.

**Lord Macaulay's Miscellaneous Writings and Speeches.** Student's Edition. Crown 8vo. 6s.

**Speeches of the Right Hon. Lord Macaulay**, corrected by Himself. Crown 8vo. 3s. 6d.

**The Rev. Sydney Smith's Essays** contributed to the Edinburgh Review. Crown 8vo. 2s. 6d. sewed, 3s. 6d. cloth.

**The Wit and Wisdom of the Rev. Sydney Smith.** Crown 8vo. 3s. 6d.

**Miscellaneous and Posthumous Works of the late Henry Thomas Buckle.** Edited, with a Biographical Notice, by HELEN TAYLOR. 3 vols. 8vo. £2. 12s. 6d.

**Short Studies on Great Subjects.** By J. A. FROUDE, M.A.

CABINET EDITION, 2 vols. crown 8vo. 12s.

LIBRARY EDITION, 2 vols. demy 8vo. 24s.

THIRD SERIES, *in the press*.

**Manual of English Literature, Historical and Critical.** By T. ARNOLD, M.A. Crown 8vo. 7s. 6d.

**German Home Life**; a Series of Essays on the Domestic Life of Germany. Crown 8vo. 6s.

**Miscellaneous Works of Thomas Arnold, D.D.** late Head Master of Rugby School. 8vo. 7s. 6d.

**Realities of Irish Life.** By W. STEUART TRENCH. Crown 8vo. 2s. 6d. sewed, or 3s. 6d. cloth.

**Lectures on the Science of Language.** By F. MAX MÜLLER, M.A. &c. 2 vols. crown 8vo. 16s.

**Chips from a German Workshop ;** Essays on the Science of Religion, and on Mythology, Traditions & Customs. By F. MAX MÜLLER, M.A. 4 vols. 8vo. £2. 18s.

**Chapters on Language.** By F. W. FARRAR, D.D. Crown 8vo. price 5s.

**Families of Speech.** Four Lectures delivered at the Royal Institution. By F. W. FARRAR, D.D. Crown 8vo. 3s. 6d.

**Apparitions ; a Narrative of Facts.** By the Rev. B. W. SAVILE, M.A. Crown 8vo. 4s. 6d.

**Miscellaneous Writings of John Conington, M.A.** Edited by J. A. SYMONDS, M.A. With a Memoir by H. J. S. SMITH, M.A. 2 vols. 8vo. 28s.

**The Essays and Contributions of A. K. H. B.** Uniform Cabinet Editions in crown 8vo.

**Recreations of a Country Parson,** Two Series, 3s. 6d. each.

**Landscapes, Churches, and Moralities,** price 3s. 6d.

**Seaside Musings,** 3s. 6d.

**Changed Aspects of Unchanged Truths,** 3s. 6d.

**Counsel and Comfort from a City Pulpit,** 3s. 6d.

**Lessons of Middle Age,** 3s. 6d.

**Leisure Hours in Town,** 3s. 6d.

**Autumn Holidays of a Country Parson,** price 3s. 6d.

**Sunday Afternoons at the Parish Church of a University City,** 3s. 6d.

**The Commonplace Philosopher in Town and Country,** 3s. 6d.

**Present-Day Thoughts,** 3s. 6d.

**Critical Essays of a Country Parson,** price 3s. 6d.

**The Graver Thoughts of a Country Parson,** Three Series, 3s. 6d. each.

## DICTIONARIES and OTHER BOOKS of REFERENCE.

**Dictionary of the English Language.** By R. G. LATHAM, M.A. M.D. Abridged from Dr. Latham's Edition of Johnson's English Dictionary. Medium 8vo. 24s.

**A Dictionary of the English Language.** By R. G. LATHAM, M.A. M.D. Founded on the Dictionary of Dr. S. Johnson, as edited by the Rev. H. J. TODD, with numerous Emendations and Additions. 4 vols. 4to. £7.

**Thesaurus of English Words and Phrases,** classified and arranged so as to facilitate the expression of Ideas, and assist in Literary Composition. By P. M. ROGET, M.D. Crown 8vo. 10s. 6d.

**English Synonymes.** By E. J. WHATELY. Edited by R. WHATELY, D.D. Fcp. 8vo. 3s.

**Handbook of the English Language.** For the Use of Students of the Universities and the Higher Classes in Schools. By R. G. LATHAM, M.A. M.D. Crown 8vo. 6s.

**A Practical Dictionary of the French and English Languages.** By LÉON CONTANSEAU, many years French Examiner for Military and Civil Appointments, &c. Post 8vo. price 7s. 6d.

**Contanseau's Pocket Dictionary,** French and English, abridged from the Practical Dictionary by the Author. Square 18mo. 3s. 6d.

**A New Pocket Dictionary** of the German and English Languages. By F. W. LONGMAN, Balliol College, Oxford. Square 18mo. price 5s.

**A Practical Dictionary** of the German Language; German-English and English-German. By Rev. W. L. BLACKLEY, M.A. and Dr. C. M. FRIEDLÄNDER. Post 8vo. 7s. 6d.

**A Dictionary of Roman and Greek Antiquities.** With 2,000 Woodcuts illustrative of the Arts and Life of the Greeks and Romans. By A. RICH, B.A. Crown 8vo. 7s. 6d.

**A Greek-English Lexicon.** By H. G. LIDDELL, D.D. Dean of Christchurch, and R. SCOTT, D.D. Dean of Rochester. Crown 4to. 36s.

**A Lexicon, Greek and English,** abridged for Schools from Liddell and Scott's Greek-English Lexicon. Square 12mo. 7s. 6d.

**An English-Greek Lexicon,** containing all the Greek Words used by Writers of good authority. By C. D. YONGE, M.A. 4to. 21s.

**Mr. Yonge's Lexicon,** English and Greek, abridged from his larger Lexicon. Square 12mo. 8s. 6d.

**A Latin-English Dictionary.** By JOHN T. WHITE, D.D. Oxon. and J. E. RIDDLE, M.A. Oxon. Sixth Edition, revised. 1 vol. 4to. 28s.

**White's College Latin-English Dictionary;** abridged from the Parent Work for the use of University Students. Medium 8vo. 15s.

**A Latin-English Dictionary** adapted for the use of Middle-Class Schools. By JOHN T. WHITE, D.D. Oxon. Square fcp. 8vo. 3s.

**White's Junior Student's Complete Latin-English and English-Latin Dictionary.** Square 12mo. price 12s.

Separately { ENGLISH-LATIN, 5s. 6d.  
LATIN-ENGLISH, 7s. 6d.

**M'Culloch's Dictionary,** Practical, Theoretical, and Historical, of Commerce and Commercial Navigation. Edited and corrected to 1876 by H. G. REID. 8vo. 63s. Second SUPPLEMENT, price 3s. 6d.

**A General Dictionary of Geography,** Descriptive, Physical, Statistical, and Historical; forming a complete Gazetteer of the World. By A. KEITH JOHNSTON. New Edition (1877), thoroughly revised. Medium 8vo. 42s.

**Maunder's Treasury of Knowledge and Library of Reference;** comprising an English DICTIONARY and Grammar, Universal Gazetteer, Classical Dictionary, Chronology, Law Dictionary, Synopsis of the Peerage, Useful Tables, &c. Fcp. 8vo. 6s.

**The Treasury of Bible Knowledge;** being a DICTIONARY of the Books, Persons, Places, Events, and other Matters of which mention is made in Holy Scripture. By the Rev. J. AYRE, M.A. With Maps, Plates, and many Woodcuts. Fcp. 8vo. 6s.

**The Public Schools Atlas of Modern Geography,** in 31 entirely new Coloured Maps. Edited with an Introduction by Rev. G. BUTLER, M.A. In imperial 8vo. or imperial 4to. price 5s. cloth.

**The Public Schools Atlas of Ancient Geography,** in 28 entirely new Coloured Maps. Edited with an Introduction by the Rev. G. BUTLER, M.A. In imperial 8vo. or imperial 4to. price 7s. 6d. cloth.



## ASTRONOMY and METEOROLOGY.

### The Universe and the

**Coming Transits;** Researches into and New Views respecting the Constitution of the Heavens. By R. A. PROCTOR, B.A. With 22 Charts and 22 Diagrams. 8vo. 16s.

### Saturn and its System.

By R. A. PROCTOR, B.A. 8vo. with 14 Plates, 14s.

### The Transits of Venus;

A Popular Account of Past and Coming Transits. By R. A. PROCTOR, B.A. 20 Plates (12 Coloured) and 27 Woodcuts. Crown 8vo. 8s. 6d.

### Essays on Astronomy.

A Series of Papers on Planets and Meteors, the Sun and Sun-surrounding Space, Star and Star Cloudlets. By R. A. PROCTOR, B.A. With 10 Plates and 24 Woodcuts. 8vo. 12s.

### The Moon; her Motions,

Aspects, Scenery, and Physical Condition. By R. A. PROCTOR, B.A. With Plates, Charts, Woodcuts, and Lunar Photographs. Crown 8vo. 15s.

### The Sun; Ruler, Light, Fire,

and Life of the Planetary System. By R. A. PROCTOR, B.A. With Plates & Woodcuts. Crown 8vo. 14s.

### The Orbs Around Us;

a Series of Essays on the Moon & Planets, Meteors & Comets, the Sun & Coloured Pairs of Suns. By R. A. PROCTOR, B.A. With Chart and Diagrams. Crown 8vo. 7s. 6d.

### Other Worlds than Ours;

The Plurality of Worlds Studied under the Light of Recent Scientific Researches. By R. A. PROCTOR, B.A. With 14 Illustrations. Cr. 8vo. 10s. 6d.

### Brinkley's Astronomy.

Revised and partly re-written by JOHN W. STUBBS, D.D. and F. BRUNNOW, Ph.D. With 49 Diagrams. Crown 8vo. price 6s.

### Outlines of Astronomy.

By Sir J. F. W. HERSCHEL, Bart. M.A. Latest Edition, with Plates and Diagrams. Square crown 8vo. 12s.

### The Moon, and the Con-

dition and Configurations of its Surface. By E. NEISON, F.R. Ast. Soc. &c. With 26 Maps and 5 Plates. Medium 8vo. 31s. 6d.

### Celestial Objects for

Common Telescopes. By T. W. WEBB, M.A. With Map of the Moon and Woodcuts. Crown 8vo. 7s. 6d.

### A New Star Atlas, for the

Library, the School, and the Observatory, in 12 Circular Maps (with 2 Index Plates). By R. A. PROCTOR, B.A. Crown 8vo. 5s.

### Larger Star Atlas, for the

Library, in Twelve Circular Maps, photolithographed by A. Brothers, F.R.A.S. With 2 Index Plates and a Letterpress Introduction. By R. A. PROCTOR, B.A. Small folio, 25s.

### Dove's Law of Storms,

considered in connexion with the Ordinary Movements of the Atmosphere. Translated by R. H. SCOTT, M.A. 8vo. 10s. 6d.

### Air and Rain; the Begin-

nings of a Chemical Climatology. By R. A. SMITH, F.R.S. 8vo. 24s.

### Air and its Relations to

Life, 1774-1874; a Course of Lectures delivered at the Royal Institution of Great Britain. By W. N. HARTLEY, F.C.S. With 66 Woodcuts. Small 8vo. 6s.

### Schellen's Spectrum

Analysis, in its Application to Terrestrial Substances and the Physical Constitution of the Heavenly Bodies. Translated by JANE and C. LASSELL, with Notes by W. HUGGINS, LL.D. F.R.S. 8vo. Plates and Woodcuts, 28s.

## NATURAL HISTORY and PHYSICAL SCIENCE.

### Professor Helmholtz' | Fragments of Science.

**Popular Lectures on Scientific Subjects.** Translated by E. ATKINSON, F.C.S. With numerous Wood Engravings. 8vo. 12s. 6d.

By JOHN TYNDALL, F.R.S. Fifth Edition, with a New Introduction. Crown 8vo. 10s. 6d.

### On the Sensations of

**Tone**, as a Physiological Basis for the Theory of Music. By H. HELMHOLTZ, Professor of Physiology in the University of Berlin. Translated by A. J. ELLIS, F.R.S. 8vo. 36s.

### Heat a Mode of Motion.

By JOHN TYNDALL, F.R.S. Fifth Edition, Plate and Woodcuts. Crown 8vo. 10s. 6d.

### Ganot's Natural Philo-

**sophy for General Readers and Young Persons**; a Course of Physics divested of Mathematical Formulæ and expressed in the language of daily life. Translated by E. ATKINSON, F.C.S. Second Edition, with 2 Plates and 429 Woodcuts. Crown 8vo. 7s. 6d.

### Sound.

By JOHN TYNDALL, F.R.S. Third Edition, including Recent Researches on Fog-Signalling; Portrait and Woodcuts. Crown 8vo. price 10s. 6d.

### Ganot's Elementary

**Treatise on Physics**, Experimental and Applied, for the use of Colleges and Schools. Translated and edited by E. ATKINSON, F.C.S. Seventh Edition, with 4 Coloured Plates and 758 Woodcuts. Post 8vo. 15s.

### Researches on Diamag-

**netism and Magne-Crystallic Action**; including Diamagnetic Polarity. By JOHN TYNDALL, F.R.S. With 6 Plates and many Woodcuts. 8vo. 14s.

### Arnott's Elements of Phy-

**sics or Natural Philosophy.** Seventh Edition, edited by A. BAIN, LL.D. and A. S. TAYLOR, M.D. F.R.S. Crown 8vo. Woodcuts, 12s. 6d.

### Contributions to Mole-

**cular Physics in the domain of Radiant Heat.** By JOHN TYNDALL, F.R.S. With 2 Plates and 31 Woodcuts. 8vo. 16s.

### The Correlation of Phy-

**sical Forces.** By the Hon. Sir W. R. GROVE, F.R.S. &c. Sixth Edition, with other Contributions to Science. 8vo. 15s.

### Six Lectures on Light,

delivered in America in 1872 and 1873. By JOHN TYNDALL, F.R.S. Second Edition, with Portrait, Plate, and 59 Diagrams. Crown 8vo. 7s. 6d.

### Weinhold's Introduction

**to Experimental Physics**; including Directions for Constructing Physical Apparatus and for Making Experiments. Translated by B. LORWY, F.R.A.S. With a Preface by G. C. FOSTER, F.R.S. 8vo. Plates & Woodcuts 31s. 6d.

### Notes of a Course of Nine

**Lectures on Light**, delivered at the Royal Institution. By JOHN TYNDALL, F.R.S. Crown 8vo. 1s. sewed, or 1s. 6d. cloth.

### Principles of Animal Me-

**chanics.** By the Rev. S. HAUGHTON, F.R.S. Second Edition. 8vo. 21s.

### Notes of a Course of

**Seven Lectures on Electrical Phenomena and Theories**, delivered at the Royal Institution. By JOHN TYNDALL, F.R.S. Crown 8vo. 1s. sewed, or 1s. 6d. cloth.

### A Treatise on Magnet-

**ism**, General and Terrestrial. By H. LLOYD, D.D. D.C.L. 8vo. 10s. 6d.

### Elementary Treatise on

**the Wave-Theory of Light.** By H. LLOYD, D.D. D.C.L. 8vo. 10s. 6d.

## Text-Books of Science,

Mechanical and Physical, adapted for the use of Artisans and of Students in Public and Science Schools. Small 8vo. with Woodcuts, &c.

**Anderson's Strength of Materials,** 3s. 6d.

**Armstrong's Organic Chemistry,** 3s. 6d.

**Barry's Railway Appliances,** 3s. 6d.

**Bloxam's Metals,** 3s. 6d.

**Goodeve's Mechanics,** 3s. 6d.

——— **Mechanism,** 3s. 6d.

**Griffin's Algebra & Trigonometry,** 3/6.

**Jenkin's Electricity & Magnetism,** 3/6.

**Maxwell's Theory of Heat,** 3s. 6d.

**Merrifield's Technical Arithmetic,** 3s. 6d.

**Miller's Inorganic Chemistry,** 3s. 6d.

**Preece & Sivewright's Telegraphy,** 3/6.

**Shelley's Workshop Appliances,** 3s. 6d.

**Thomé's Structural and Physiological Botany,** 6s.

**Thorpe's Quantitative Analysis,** 4s. 6d.

**Thorpe & Muir's Qualitative Analysis,** price 3s. 6d.

**Tilden's Systematic Chemistry,** 3s. 6d.

**Unwin's Machine Design,** 3s. 6d.

**Watson's Plane & Solid Geometry,** 3/6.

\* \* Other Text-Books, in continuation of this Series, in active preparation.

## The Comparative Anatomy and Physiology of the Vertebrate Animals.

By RICHARD OWEN, F.R.S. With 1,472 Woodcuts. 3 vols. 8vo. £3. 13s. 6d.

**Kirby and Spence's Introduction to Entomology,** or Elements of the Natural History of Insects. Crown 8vo. 5s.

**Light Science for Leisure Hours;** Familiar Essays on Scientific Subjects, Natural Phenomena, &c. By R. A. PROCTOR, B.A. 2 vols. crown 8vo. 7s. 6d. each.

## Homes without Hands;

a Description of the Habitations of Animals, classed according to their Principle of Construction. By the Rev. J. G. WOOD, M.A. With about 140 Vignettes on Wood. 8vo. 14s.

## Strange Dwellings; a De-

scription of the Habitations of Animals, abridged from 'Homes without Hands.' By the Rev. J. G. WOOD, M.A. With Frontispiece and 60 Woodcuts. Crown 8vo. 7s. 6d.

## Insects at Home; a Popu-

lar Account of British Insects, their Structure, Habits, and Transformations. By the Rev. J. G. WOOD, M.A. With upwards of 700 Woodcuts. 8vo. price 14s.

## Insects Abroad; being a

Popular Account of Foreign Insects, their Structure, Habits, and Transformations. By the Rev. J. G. WOOD, M.A. With upwards of 700 Woodcuts. 8vo. 14s.

## Out of Doors; a Selection

of Original Articles on Practical Natural History. By the Rev. J. G. WOOD, M.A. With 6 Illustrations. Crown 8vo. 7s. 6d.

## Bible Animals; a Descrip-

tion of every Living Creature mentioned in the Scriptures, from the Ape to the Coral. By the Rev. J. G. WOOD, M.A. With 112 Vignettes. 8vo. 14s.

## The Polar World: a Popu-

lar Description of Man and Nature in the Arctic and Antarctic Regions of the Globe. By Dr. G. HARTWIG. With Chromoxylographs, Maps, and Woodcuts. 8vo. 10s. 6d.

## The Sea and its Living

Wonders. By Dr. G. HARTWIG. Fourth Edition, enlarged. 8vo. with numerous Illustrations, 10s. 6d.

## The Tropical World. By

Dr. G. HARTWIG. With about 200 Illustrations. 8vo. 10s. 6d.

## The Subterranean

World. By Dr. G. HARTWIG. With Maps and Woodcuts. 8vo. 10s. 6d.

## The Aerial World; a Popu-

lar Account of the Phenomena and Life of the Atmosphere. By Dr. G. HARTWIG. With Map, 8 Chromoxylographs & 60 Woodcuts. 8vo. 21s.

## Maudslayi's Treasury of

**Natural History**, or Popular Dictionary of Animated Nature; in which the Zoological Characteristics that distinguish the different Classes, Genera and Species, are combined with a variety of interesting Information illustrative of the Habits, Instincts, and General Economy of the Animal Kingdom. Fcp. 8vo. with 900 Woodcuts, 6s.

## A Familiar History of

**Birds.** By E. STANLEY, D.D. late Bishop of Norwich. Fcp. 8vo. with Woodcuts, 3s. 6d.

## Rocks Classified and De-

scribed. By B. VON COTTA. English Edition by P. H. LAWRENCE (with English, German, and French Synonyms), revised by the Author. Post 8vo. 14s.

## The Geology of England

and Wales; a Concise Account of the Lithological Characters, Leading Fossils, and Economic Products of the Rocks. By H. B. WOODWARD, F.G.S. Crown 8vo. Map & Woodcuts, 14s.

## The Primæval World of

Switzerland. By Professor OSWALD HEER, of the University of Zurich. Edited by JAMES HEYWOOD, M.A. F.R.S. President of the Statistical Society. With Map, 19 Plates, & 372 Woodcuts. 2 vols. 8vo. 28s.

## The Puzzle of Life and

How it Has Been Put Together: a Short History of Vegetable and Animal Life upon the Earth from the Earliest Times; including an Account of Pre-Historic Man, his Weapons, Tools, and Works. By A. NICOLS, F.R.G.S. With 12 Illustrations. Crown 8vo. 5s.

## The Origin of Civilisa-

tion, and the Primitive Condition of Man; Mental and Social Condition of Savages. By Sir J. LUBBOCK, Bart. M.P. F.R.S. Third Edition, with 25 Woodcuts. 8vo. 18s.

## The Ancient Stone Im-

plements, Weapons, and Ornaments of Great Britain. By JOHN EVANS, F.R.S. With 2 Plates and 476 Woodcuts. 8vo. 28s.

## The Elements of Botany

for Families and Schools. Eleventh Edition, revised by THOMAS MOORE, F.L.S. Fcp. 8vo. Woodcuts, 2s. 6d.

## The Rose Amateur's

Guide. By THOMAS RIVERS. Latest Edition. Fcp. 8vo. 4s.

## A Dictionary of Science,

Literature, and Art. Re-edited by the late W. T. BRANDE (the Author) and the Rev. G. W. COX, M.A. 3 vols. medium 8vo. 63s.

## The History of Modern

Music, a Course of Lectures delivered at the Royal Institution of Great Britain. By JOHN HULLAH. Second Edition. Demy 8vo. 8s. 6d.

## Mr. Hullah's 2nd Course

of Lectures on the Transition Period of Musical History, from the Beginning of the Seventeenth to the Middle of the Eighteenth Century. Second Edition. Demy 8vo. 10s. 6d.

## Structural and Physio-

logical Botany. By OTTO W. THOMÉ, Professor of Botany at the School of Science and Art, Cologne. Translated and edited by A. W. BENNETT, M.A. B.Sc. F.L.S. Lecturer on Botany at St. Thomas's Hospital. With about 600 Woodcuts and a Coloured Map. Small 8vo. 6s.

## The Treasury of Botany,

or Popular Dictionary of the Vegetable Kingdom; with which is incorporated a Glossary of Botanical Terms. Edited by J. LINDLEY, F.R.S. and T. MOORE, F.L.S. With 274 Woodcuts and 20 Steel Plates. Two Parts, fcp. 8vo. 12s.

## Loudon's Encyclopædia

of Plants; comprising the Specific Character, Description, Culture, History, &c. of all the Plants found in Great Britain. With upwards of 12,000 Woodcuts. 8vo. 42s.

**De Caisne & Le Maout's**

**System of Descriptive and Analytical Botany.** Translated by Mrs. HOOKER; edited and arranged according to the English Botanical System, by J. D. HOOKER, M.D. With 5,500 Woodcuts. Imperial 8vo. 31s. 6d.

**Hand-Book of Hardy**

**Trees, Shrubs, and Herbaceous Plants;** containing Descriptions &c. of the Best Species in Cultivation. With 720 Original Woodcut Illustrations. By W. B. HEMSLEY. Medium 8vo. 12s.

**CHEMISTRY and PHYSIOLOGY.**

**Miller's Elements of Chemistry,**

Theoretical and Practical. Re-edited, with Additions, by H. MACLEOD, F.C.S. 3 vols. 8vo.

PART I. CHEMICAL PHYSICS, New Edition in the press.

PART II. INORGANIC CHEMISTRY, 21s.

PART III. ORGANIC CHEMISTRY, New Edition in the press.

**An Introduction to the**

**Study of Chemical Philosophy;** or, the Principles of Theoretical and Systematic Chemistry. By W. A. TILDEN, F.C.S. Small 8vo. 3s. 6d.

**Select Methods in Chemical Analysis,**

chiefly Inorganic. By WM. CROOKES, F.R.S. With 22 Woodcuts. Crown 8vo. 12s. 6d.

**Health in the House:**

Twenty-five Lectures on Elementary Physiology in its Application to the Daily Wants of Man and Animals. By Mrs. C. M. BUCKTON. Crown 8vo. Woodcuts, 2s.

**A Dictionary of Chemistry**

**and the Allied Branches of other Sciences.** By HENRY WATTS, F.C.S. assisted by eminent Scientific and Practical Chemists. 7 vols. medium 8vo. £10. 16s. 6d.

**Outlines of Physiology,**

Human and Comparative. By J. MARSHALL, F.R.C.S. Surgeon to the University College Hospital. 2 vols. crown 8vo. with 122 Woodcuts, 32s.

**Supplementary Volume,**

completing the Record of Chemical Discovery to the year 1876.

[In preparation.]

**The FINE ARTS and ILLUSTRATED EDITIONS.**

**Poems.** By W. B. SCOTT.

Illustrated by Seventeen Etchings by L. A. TADEMA and W. B. SCOTT. Crown 8vo. 15s.

**In Fairyland; Pictures**

from the Elf-World. By RICHARD DOYLE. With a Poem by W. AL- LINGHAM. With 16 coloured Plates, containing 36 Designs. Folio, 15s.

**Half-hour Lectures on**

the History and Practice of the **Fine and Ornamental Arts.** By W. B. SCOTT. Cr. 8vo. Woodcuts, 8s. 6d.

**Lord Macaulay's Lays of**

**Ancient Rome.** With 90 Illustrations on Wood from Drawings by G. SCHARF. Fcp. 4to. 21s.

**A Dictionary of Artists of**

the **English School:** Painters, Sculptors, Architects, Engravers, and Ornamentists. By S. REDGRAVE. 8vo. 16s.

**Miniature Edition, with**

G. Scharf's 90 Illustrations reduced in Lithography. Imp. 16mo. 10s. 6d.

**Moore's Lalla Rookh,**  
TENNIEL'S Edition, with 68 Wood Engravings from Original Drawings. Fcp. 4to. 21s.

**Moore's Irish Melodies,**  
MACLISE'S Edition, with 161 Steel Plates. Super royal 8vo. 21s.

**The New Testament,**  
Illustrated with Wood Engravings after the Early Masters, chiefly of the Italian School. Crown 4to. 63s.

**Sacred and Legendary**  
\*Art. By Mrs. JAMESON. 6 vols. square crown 8vo. price £5. 15s. 6d.

**Legends of the Saints and Martyrs.** With 19 Etchings and 187 Woodcuts. 2 vols. 31s. 6d.

**Legends of the Monastic Orders.** With 11 Etchings and 88 Woodcuts. 1 vol. 21s.

**Legends of the Madonna.**  
With 27 Etchings and 165 Woodcuts. 1 vol. 21s.

**The History of our Lord,**  
with that of his Types and Precursors. Completed by Lady EASTLAKE. With 13 Etchings and 281 Woodcuts. 2 vols. 42s.

**The Three Cathedrals**  
dedicated to St. Paul in London; their History from the Foundation of the First Building in the Sixth Century to the Proposals for the Adornment of the Present Cathedral. By W. LONGMAN, F.S.A. With numerous Illustrations. Square crown 8vo. 21s.

## The USEFUL ARTS, MANUFACTURES, &c.

**The Amateur Mechanics' Practical Handbook;** describing the different Tools required in the Workshop, the uses of them, and how to use them. By A. H. G. HOBSON. With 33 Woodcuts. Crown 8vo. 2s. 6d.

**The Engineer's Valuing Assistant.** By H. D. HOSKOLD, Civil and Mining Engineer, 16 years Mining Engineer to the Dean Forest Iron Company. 8vo. [*In the press.*]

**The Whitworth Measuring Machine;** including Descriptions of the Surface Plates, Gauges, and other Measuring Instruments made by Sir J. WHITWORTH, Bart. By T. M. GOODEVE, M.A. and C. P. B. SHELLEY, C.E. Fcp. 4to. with 4 Plates and 44 Woodcuts. [*Nearly ready.*]

**Industrial Chemistry;** a Manual for Manufacturers and for Colleges or Technical Schools; a Translation of Stohmann and Engler's German Edition of PAYEN'S 'Précis de Chimie Industrielle,' by Dr. J. D. BARRY. With Chapters on the Chemistry of the Metals, by B. H. PAUL, Ph.D. 8vo. Plates & Woodcuts. [*In the press.*]

**Gwilt's Encyclopædia of Architecture,** with above 1,600 Woodcuts. Revised and extended by W. PAPWORTH. 8vo. 52s. 6d.

**Lathes and Turning, Simple, Mechanical, and Ornamental.** By W. H. NORTHCOTT. Second Edition, with 338 Illustrations. 8vo. 18s.

**Hints on Household Taste in Furniture, Upholstery, and other Details.** By C. L. EASTLAKE. With about 90 Illustrations. Square crown 8vo. 14s.

**Handbook of Practical Telegraphy.** By R. S. CULLEY, Memb. Inst. C.E. Engineer-in-Chief of Telegraphs to the Post-Office. 8vo. Plates & Woodcuts, 16s.

**A Treatise on the Steam Engine,** in its various applications to Mines, Mills, Steam Navigation, Railways and Agriculture. By J. BOURNE, C.E. With Portrait, 37 Plates, and 546 Woodcuts. 4to. 42s.

**Recent Improvements in the Steam Engine.** By J. BOURNE, C.E. Fcp. 8vo. Woodcuts, 6s.

## **Catechism of the Steam**

**Engine**, in its various Applications. By JOHN BOURNE, C.E. Fcp. 8vo. Woodcuts, 6s.

## **Handbook of the Steam**

**Engine** By J. BOURNE, C.E. forming a Key to the Author's Catechism of the Steam Engine. Fcp. 8vo. Woodcuts, 9s.

## **Encyclopædia of Civil**

**Engineering**, Historical, Theoretical, and Practical. By E. CRESY, C.E. With above 3,000 Woodcuts. 8vo. 42s.

## **Ure's Dictionary of Arts,**

**Manufactures, and Mines.** Seventh Edition, re-written and enlarged by R. HUNT, F.R.S. assisted by numerous contributors. With 2,100 Woodcuts. 3 vols. medium 8vo. £5. 5s.

VOL. IV. Supplementary, completing all the Departments of the Dictionary to the beginning of the year 1877, is preparing for publication.

## **Practical Treatise on Me-**

**tallurgy.** Adapted from the last German Edition of Professor KERL's Metallurgy by W. CROOKES, F.R.S. &c. and E. RÖHRIG, Ph.D. 3 vols. 8vo. with 625 Woodcuts. £4. 19s.

## **The Theory of Strains in**

**Girders and similar Structures**, with Observations on the application of Theory to Practice, and Tables of the Strength and other Properties of Materials. By B. B. STONEY, M.A. M. Inst. C.E. Royal 8vo. with 5 Plates and 123 Woodcuts, 36s.

## **Treatise on Mills and**

**Millwork.** By Sir W. FAIRBAIRN, Bt. With 18 Plates and 322 Woodcuts. 2 vols. 8vo. 32s.

## **Useful Information for**

**Engineers.** By Sir W. FAIRBAIRN, Bt. With many Plates and Woodcuts. 3 vols. crown 8vo. 31s. 6d.

## **The Application of Cast**

**and Wrought Iron to Building Purposes.** By Sir W. FAIRBAIRN, Bt. With 6 Plates and 118 Woodcuts. 8vo. 16s.

## **Practical Handbook of**

**Dyeing and Calico-Printing.** By W. CROOKES, F.R.S. &c. With numerous Illustrations and specimens of Dyed Textile Fabrics. 8vo. 42s.

## **Anthracen; its Constitution,**

Properties, Manufacture, and Derivatives, including Artificial Alizarin, Anthrapurpurin, &c. with their Applications in Dyeing and Printing. By G. AUERBACH. Translated by W. CROOKES, F.R.S. 8vo. 12s.

## **Mitchell's Manual of**

**Practical Assaying.** Fourth Edition, revised, with the Recent Discoveries incorporated, by W. CROOKES, F.R.S. Crown 8vo. Woodcuts, 31s. 6d.

## **Loudon's Encyclopædia**

**of Gardening**; comprising the Theory and Practice of Horticulture, Floriculture, Arboriculture, and Landscape Gardening. With 1,000 Woodcuts. 8vo. 21s.

## **Loudon's Encyclopædia**

**of Agriculture**; comprising the Laying-out, Improvement, and Management of Landed Property, and the Cultivation and Economy of the Productions of Agriculture. With 1,100 Woodcuts. 8vo. 21s.

## **RELIGIOUS and MORAL WORKS.**

## **An Exposition of the 39**

**Articles**, Historical and Doctrinal. By E. H. BROWNE, D.D. Bishop of Winchester. Latest Edition. 8vo. 16s.

## **An Introduction to the**

**Theology of the Church of England**, in an Exposition of the 39 Articles. By T. P. BOULTBEE, LL.D. Fcp. 8vo. 6s.

## Historical Lectures on

the Life of Our Lord Jesus Christ.  
By C. J. ELLICOTT, D.D. 8vo. 12s.

## Sermons Chiefly on the

Interpretation of Scripture. By the  
late Rev. THOMAS ARNOLD, D.D.  
8vo. 7s. 6d.

## Sermons preached in the

Chapel of Rugby School; with an  
Address before Confirmation. By  
THOMAS ARNOLD, D.D. Fcp. 8vo.  
price 3s. 6d.

## Christian Life, its Course,

its Hindrances, and its Helps; Ser-  
mons preached mostly in the Chapel of  
Rugby School. By THOMAS ARNOLD,  
D.D. 8vo. 7s. 6d.

## Christian Life, its Hopes,

its Fears, and its Close; Sermons  
preached mostly in the Chapel of Rugby  
School. By THOMAS ARNOLD, D.D.  
8vo. 7s. 6d.

## Synonyms of the Old Tes-

tament, their Bearing on Christian  
Faith and Practice. By the Rev. R. B.  
GIRDLESTONE. 8vo. 15s.

## The Primitive and Ca-

tholic Faith in Relation to the  
Church of England. By the Rev. B.  
W. SAVILE, M.A. 8vo. 7s.

## The Eclipse of Faith; or

a Visit to a Religious Sceptic. By  
HENRY ROGERS. Latest Edition.  
Fcp. 8vo. 5s.

## Defence of the Eclipse of

Faith. By HENRY ROGERS. Latest  
Edition. Fcp. 8vo. 3s. 6d.

## Three Essays on Reli-

gion: Nature; the Utility of Religion;  
Theism. By JOHN STUART MILL.  
8vo. 10s. 6d.

## A Critical and Gram-

matical Commentary on St. Paul's  
Epistles. By C. J. ELLICOTT, D.D.  
8vo. Galatians, 8s. 6d. Ephesians,  
8s. 6d. Pastoral Epistles, 10s. 6d.  
Philippians, Colossians, & Philemon,  
10s. 6d. Thessalonians, 7s. 6d.

## The Life and Epistles of

St. Paul. By Rev. W. J. CONYBEARE,  
M.A. and Very Rev. JOHN SAUL HOW-  
SON, D.D. Dean of Chester. Three  
Editions, copiously illustrated.

## Library Edition, with all the Original

Illustrations, Maps, Landscapes on  
Steel, Woodcuts, &c. 2 vols. 4to. 42s.

## Intermediate Edition, with a Selection

of Maps, Plates, and Woodcuts. 2 vols.  
square crown 8vo. 21s.

## Student's Edition, revised and con-

densed, with 46 Illustrations and Maps.  
1 vol. crown 8vo. 9s.

## Evidence of the Truth of

the Christian Religion derived from  
the Literal Fulfilment of Prophecy. By  
ALEXANDER KEITH, D.D. 40th  
Edition, with numerous Plates. Square  
8vo. 12s. 6d. or in post 8vo. with 5  
Plates, 6s.

## The Prophets and Pro-

phesy in Israel; an Historical and  
Critical Inquiry. By Dr. A. KUENEN,  
Prof. of Theol. in the Univ. of Leyden.  
Translated from the Dutch by the Rev.  
A. MILROY, M.A. with an Introduc-  
tion by J. MUIR, D.C.L. 8vo. 21s.

## Mythology among the

Hebrews and its Historical Develop-  
ment. By IGNAZ GOLDZIEHER, Ph.D.  
Translated by RUSSELL MARTINEAU,  
M.A. 8vo. 16s.

## Historical and Critical

Commentary on the Old Testament;  
with a New Translation. By M. M.  
KALISCH, Ph.D. Vol. I. Genesis,  
8vo. 18s. or adapted for the General  
Reader, 12s. Vol. II. Exodus, 15s. or  
adapted for the General Reader, 12s.  
Vol. III. Leviticus, Part I. 15s. or  
adapted for the General Reader, 8s.  
Vol. IV. Leviticus, Part II. 15s. or  
adapted for the General Reader, 8s.



**The History and Literature of the Israelites**, according to the Old Testament and the Apocrypha. By C. DE ROTHSCHILD & A. DE ROTHSCHILD. 2 vols. crown 8vo. 12s. 6d. Abridged Edition, 1 vol. fcp. 8vo. 3s. 6d.

**Ewald's History of Israel.** Translated from the German by J. E. CARPENTER, M.A. with Preface by R. MARTINEAU, M.A. 5 vols. 8vo. 63s.

**Ewald's Antiquities of Israel.** Translated from the German by H. S. SOLLY, M.A. 8vo. 12s. 6d.

**Behind the Veil; an Outline of Bible Metaphysics** compared with Ancient and Modern Thought. By the Rev. T. GRIFFITH, M.A. Prebendary of St. Paul's. 8vo. 10s. 6d.

**The Trident, the Crescent & the Cross; a View of the Religious History of India** during the Hindu, Buddhist, Mohammedan, and Christian Periods. By the Rev. J. VAUGHAN, Nineteen Years Missionary in India. 8vo. 9s. 6d.

**The Types of Genesis**, briefly considered as revealing the Development of Human Nature. By ANDREW JUKES. Crown 8vo. 7s. 6d.

**The Second Death and the Restitution of all Things**; with some Preliminary Remarks on the Nature and Inspiration of Holy Scripture. By A. JUKES. Crown 8vo. 3s. 6d.

**History of the Reformation in Europe in the time of Calvin.** By the Rev. J. H. MERLE D'AUBIGNÉ, D.D. Translated by W. L. R. CATES. 7 vols. 8vo. price £5. 11s.

VOL. VIII. translated by W. L. R. CATES, and completing the English Edition of Dr. D'AUBIGNÉ'S Work, is in the press.

**Supernatural Religion; an Inquiry into the Reality of Divine Revelation.** 2 vols. 8vo. 24s.

**Commentaries, by the Rev.** W. A. O'CONOR, B.A. Rector of St. Simon and St. Jude, Manchester.

Epistle to the Romans, crown 8vo. 3s. 6d.  
Epistle to the Hebrews, 4s. 6d.  
St. John's Gospel, 10s. 6d.

**An Introduction to the Study of the New Testament**, Exegetical, and Theological. By the Rev. S. DAVIDSON, D.D. LL.D. 2 vols. 8vo. 30s.

**Passing Thoughts on Religion.** By ELIZABETH M. SEWELL. Fcp. 8vo. 3s. 6d.

**Thoughts for the Age.** by ELIZABETH M. SEWELL. New Edition. Fcp. 8vo. 3s. 6d.

**Some Questions of the Day.** By ELIZABETH M. SEWELL. Crown 8vo. 2s. 6d.

**Self-examination before Confirmation.** By ELIZABETH M. SEWELL. 32mo. 1s. 6d.

**Preparation for the Holy Communion**; the Devotions chiefly from the works of Jeremy Taylor. By ELIZABETH M. SEWELL. 32mo. 3s.

**Bishop Jeremy Taylor's Entire Works**; with Life by Bishop Heber. Revised and corrected by the Rev. C. P. EDEN. 10 vols. £5. 5s.

**Hymns of Praise and Prayer.** Corrected and edited by Rev. JOHN MARTINEAU, LL.D. Crown 8vo. 4s. 6d. 32mo. 1s. 6d.

**Spiritual Songs for the Sundays and Holidays throughout the Year.** By J. S. B. MONSELL, LL.D. Fcp. 8vo. 5s. 18mo. 2s.

**Lyra Germanica; Hymns** translated from the German by Miss C. WINKWORTH. Fcp. 8vo. 5s.

**Hours of Thought on Sacred Things**; a Volume of Sermons. By JAMES MARTINEAU, D.D. LL.D. Crown 8vo. Price 7s. 6d.

**The Pentateuch & Book of Joshua Critically Examined.** By J. W. COLENSO, D.D. Bishop of Natal. Crown 8vo. 6s.

**Endeavours after the Christian Life**; Discourses. By JAMES MARTINEAU, D.D. LL.D. Fifth Edition. Crown 8vo. 7s. 6d.

**Lectures on the Pentateuch and the Moabite Stone**; with Appendices. By J. W. COLENSO, D.D. Bishop of Natal. 8vo. 12s.

## TRAVELS, VOYAGES, &c.

**A Year in Western France.** By M. BETHAM-EDWARDS. Crown 8vo. Frontispiece, 10s. 6d.

**Journal of a Residence in Vienna and Berlin** during the eventful Winter 1805-6. By the late HENRY REEVE, M.D. Published by his SON. Crown 8vo. 8s. 6d.

**One Thousand Miles up the Nile**; a Journey through Egypt and Nubia to the Second Cataract. By AMELIA B. EDWARDS. With Facsimiles of Inscriptions, Ground Plans, Two Coloured Maps, and 80 Illustrations engraved on Wood from Drawings by the Author. Imperial 8vo. 42s.

**The Indian Alps, and How we Crossed them**: a Narrative of Two Years' Residence in the Eastern Himalayas, and Two Months' Tour into the Interior. By a Lady Pioneer. With Illustrations from Original Drawings by the Author. Imperial 8vo. 42s.

**Discoveries at Ephesus**, Including the Site and Remains of the Great Temple of Diana. By J. T. WOOD, F.S.A. With 27 Lithographic Plates and 42 Wood Engravings. Medium 8vo. 63s.

**Through Bosnia and the Herzegovina on Foot during the Insurrection**, August and September 1875. By ARTHUR J. EVANS, B.A. F.S.A. Second Edition. Map & Illustrations. 8vo. 18s.

**Italian Alps**; Sketches in the Mountains of Ticino, Lombardy, the Trentino, and Venetia. By DOUGLAS W. FRESHFIELD. Square crown 8vo. Illustrations, 15s.

**Over the Sea and Far Away**; a Narrative of a Ramble round the World. By T. W. HINCHLIFF, M.A. F.R.G.S. President of the Alpine Club. With 14 full-page Illustrations engraved on Wood. Medium 8vo. 21s.

**The Frosty Caucasus**; an Account of a Walk through Part of the Range, and of an Ascent of Elbruz in the Summer of 1874. By F. C. GROVE. With Eight Illustrations and a Map. Crown 8vo. price 15s.

**Tyrol and the Tyrolese**; an Account of the People and the Land, in their Social, Sporting, and Mountaineering Aspects. By W. A. BAILLIE GROHMANN. Crown 8vo. with Illustrations, 14s.

**Two Years in Fiji**, a Descriptive Narrative of a Residence in the Fijian Group of Islands. By LITTON FORBES, M.D. Crown 8vo. 8s. 6d.

**Memorials of the Discovery and Early Settlement of the Bermudas or Somers Islands**, from 1615 to 1685. By Major-General J. H. LEFROY, R.A. C.B. F.R.S. &c. Governor of the Bermudas. 8vo. with Map. [In the press.]

**Eight Years in Ceylon.** By Sir SAMUEL W. BAKER, M.A. Crown 8vo. Woodcuts, 7s. 6d.

**The Rifle and the Hound in Ceylon.** By Sir SAMUEL W. BAKER, M.A. Crown 8vo. Woodcuts, 7s. 6d.

**The Dolomite Mountains.** Excursions through Tyrol, Carinthia, Carniola, and Friuli. By J. GILBERT and G. C. CHURCHILL, F.R.G.S. Square crown 8vo. Illustrations, 21s.

**The Alpine Club Map of the Chain of Mont Blanc,** from an actual Survey in 1863-1864. By A. ADAMS-REILLY, F.R.G.S. In Chromolithography, on extra stout drawing paper 10s. or mounted on canvas in a folding case 12s. 6d.

**The Alpine Club Map of the Valpelline, the Val Tournanche, and the Southern Valleys of the Chain of Monte Rosa,** from actual Survey. By A. ADAMS-REILLY, F.R.G.S. Price 6s. on extra stout drawing paper, or 7s. 6d. mounted in a folding case.

**Untrodden Peaks and Unfrequented Valleys;** a Midsummer Ramble among the Dolomites. By AMELIA B. EDWARDS. With numerous Illustrations. 8vo. 21s.

**Guide to the Pyrenees,** for the use of Mountaineers. By CHARLES PACKE. Crown 8vo. 7s. 6d.

**The Alpine Club Map of Switzerland,** with parts of the Neighbouring Countries, on the scale of Four Miles to an Inch. Edited by R. C. NICHOLS, F.R.G.S. In Four Sheets in Portfolio, price 42s. coloured, or 34s. uncoloured.

**The Alpine Guide.** By JOHN BALL, M.R.I.A. late President of the Alpine Club. Post 8vo. with Maps and other Illustrations.

**The Eastern Alps,** 10s. 6d.

**Central Alps,** including all the Oberland District, 7s. 6d.

**Western Alps,** including Mont Blanc, Monte Rosa, Zermatt, &c. Price 6s. 6d.

**Introduction on Alpine Travelling in general,** and on the Geology of the Alps. Price 1s. Either of the Three Volumes or Parts of the 'Alpine Guide' may be had with this Introduction prefixed, 1s. extra. The 'Alpine Guide' may also be had in Ten separate Parts, or districts, price 2s. 6d. each.

**How to see Norway.** By J. R. CAMPBELL. Fcp. 8vo. Map & Woodcuts, 5s.

## WORKS of FICTION.

**The Atelier du Lys;** or an Art-Student in the Reign of Terror. By the author of 'Mademoiselle Mori.' Third Edition. Crown 8vo. 6s.

**Novels and Tales.** By the Right Hon. the EARL of BEACONSFIELD. Cabinet Editions, complete in Ten Volumes, crown 8vo. 6s. each.

Lothair, 6s.	Venetia, 6s.
Coningsby, 6s.	Alroy, Ixion, &c. 6s.
Sybil, 6s.	Young Duke &c. 6s.
Tancred, 6s.	Vivian Grey, 6s.
	Henrietta Temple, 6s.
	Contarini Fleming, &c. 6s.

**Whispers from Fairyland.** By the Right Hon. E. H. KNATCHBULL-HUGESSEN, M.P. With 9 Illustrations. Crown 8vo. 6s.

**Higgledy-Piggledy;** or, Stories for Everybody and Everybody's Children. By the Right Hon. E. H. KNATCHBULL-HUGESSEN, M.P. With 9 Illustrations. Crown 8vo. 6s.

**Becker's Gallus;** or Roman Scenes of the Time of Augustus. Post 8vo. 7s. 6d.

**Becker's Charicles:** Illustrative of Private Life of the Ancient Greeks. Post 8vo. 7s. 6d.

## The Modern Novelist's Library.

**Lothair.** By the Rt. Hon. the EARL of BEACONSFIELD. Price 2s. boards; or 2s. 6d. cloth.

**Atherstone Priory,** 2s. boards; 2s. 6d. cloth.

**Mlle. Mori,** 2s. boards; 2s. 6d. cloth.

**The Burgomaster's Family,** 2s. & 2s. 6d.

**MELVILLE'S Digby Grand,** 2s. and 2s. 6d.

— **General Bounce,** 2s. & 2s. 6d.

— **Gladiators,** 2s. and 2s. 6d.

— **Good for Nothing,** 2s. & 2s. 6d.

— **Holmby House,** 2s. & 2s. 6d.

— **Interpreter,** 2s. and 2s. 6d.

— **Kate Coventry,** 2s. and 2s. 6d.

— **Queen's Maries,** 2s. & 2s. 6d.

**TROLLOPE'S Warden,** 2s. and 2s. 6d.

— **Barchester Towers,** 2s. & 2s. 6d.

**BRAMLEY-MOORE'S Six Sisters of the Valleys,** 2s. boards; 2s. 6d. cloth.

**Elsa,** a Tale of the Tyrolean Alps. Price 2s. boards; 2s. 6d. cloth.

**Unawares,** a Story of an old French Town. Price 2s. boards; 2s. 6d. cloth.

## Stories and Tales. By

ELIZABETH M. SEWELL. Cabinet Edition, in Ten Volumes, each containing a complete Tale or Story:—

**Amy Herbert,** 2s. 6d.

**Gertrude,** 2s. 6d.

**The Earl's Daughter,** 2s. 6d.

**Experience of Life,** 2s. 6d.

**Cleve Hall,** 2s. 6d.

**Ivors,** 2s. 6d.

**Katharine Ashton,** 2s. 6d.

**Margaret Percival,** 3s. 6d.

**Laneton Parsonage,** 3s. 6d.

**Ursula,** 3s. 6d.

## Tales of Ancient Greece.

By the Rev. G. W. COX, M.A. late Scholar of Trinity College, Oxford. Crown 8vo. 6s. 6d.

## POETRY and

**Milton's Lycidas.** Edited, with Notes and Introduction, by C. S. JERRAM, M.A. Crown 8vo. 2s. 6d.

**Lays of Ancient Rome;** with Ivy and the Armada. By LORD MACAULAY. 16mo. 3s. 6d.

**Lord Macaulay's Lays of Ancient Rome.** With 90 Illustrations on Wood from Drawings by G. SCHARF. Fcp. 4to. 21s.

**Miniature Edition of Lord Macaulay's Lays of Ancient Rome.** with G. Scharf's 90 Illustrations reduced in Lithography. Imp. 16mo. 10s. 6d.

**Horatii Opera.** Library Edition, with English Notes, Marginal References & various Readings. Edited by the Rev. J. E. YONGE, M.A. 8vo. price 21s.

**Southey's Poetical Works,** with the Author's last Corrections and Additions. Medium 8vo. with Portrait, 14s.

## THE DRAMA.

**Beowulf, a Heroic Poem of the Eighth Century** (Anglo-Saxon Text and English Translation), with Introduction, Notes, and Appendix. By THOMAS ARNOLD, M.A. 8vo. 12s.

**Poems by Jean Ingelow.** 2 vols. fcp. 8vo. 10s.

FIRST SERIES, containing 'Divided,' 'The Star's Monument,' &c. Fcp. 8vo. 5s.  
SECOND SERIES, 'A Story of Doom,' 'Gladys and her Island,' &c. 5s.

**Poems by Jean Ingelow.** First Series, with nearly 100 Woodcut Illustrations. Fcp. 4to. 21s.

**The Iliad of Homer,** Homometrically translated by C. B. CAYLEY, Translator of Dante's Comedy, &c. 8vo. 12s. 6d.

**The Æneid of Virgil.** Translated into English Verse. By J. CONINGTON, M.A. Crown 8vo. 9s.

**Bowdler's Family Shakespeare.** Cheaper Genuine Edition, complete in 1 vol. medium 8vo. large type, with 36 Woodcut Illustrations, 14s. or in 6 vols. fcp. 8vo. 21s.

## RURAL SPORTS, HORSE and CATTLE MANAGEMENT, &c.

**Annals of the Road; or,**  
Notes on Mail and Stage-Coaching in  
Great Britain. By Captain MALET,  
18th Hussars. To which are added  
Essays on the Road, by NIMROD.  
With 3 Woodcuts and 10 Coloured  
Illustrations. Medium 8vo. 21s.

**the Road; or, Re-**  
miniscences of a Gentleman Coachman.  
By C. T. S. BIRCH REYNARDSON.  
Second Edition, with 12 Coloured  
Illustrations. Medium 8vo. 21s.

**Blaine's Encyclopædia of**  
**Rural Sports;** Complete Accounts,  
Historical, Practical, and Descriptive,  
of Hunting, Shooting, Fishing, Racing,  
&c. With above 600 Woodcuts (20  
from Designs by J. LEECH). 8vo. 21s.

**A Book on Angling; or,**  
Treatise on the Art of Fishing in every  
branch; including full Illustrated Lists  
of Salmon Flies. By FRANCIS FRANCIS.  
Post 8vo. Portrait and Plates, 15s.

**Wilcocks's Sea-Fisher-**  
**men;** comprising the Chief Methods  
of Hook and Line Fishing, a glance at  
Nets, and remarks on Boats and Boat-  
ing. Post 8vo. Woodcuts, 12s. 6d.

**The Fly-Fisher's Ento-**  
**mology.** By ALFRED RONALDS.  
With 20 Coloured Plates. 8vo. 14s.

**Horses and Stables.** By  
Colonel F. FITZWYGRAM, XV. the  
King's Hussars. With 24 Plates of  
Illustrations. 8vo. 10s. 6d.

**Youatt on the Horse.**  
Revised and enlarged by W. WATSON,  
M.R.C.V.S. 8vo. Woodcuts, 12s. 6d.

**Youatt's Work on the**  
**Dog.** Revised and enlarged. 3vo.  
Woodcuts, 6s.

**The Dog in Health and**  
**Disease.** By STONEHENGE. With  
73 Wood Engravings. Square crown  
8vo. 7s. 6d.

**The Greyhound.** By  
STONEHENGE. Revised Edition, with  
25 Portraits of Greyhounds, &c.  
Square crown 8vo. 15s.

**Stables and Stable Fit-**  
**tings.** By W. MILES. Imp. 8vo.  
with 13 Plates, 15s.

**The Horse's Foot, and**  
**How to keep it Sound.** By W.  
MILES. Imp. 8vo. Woodcuts, 12s. 6d.

**A Plain Treatise on**  
**Horse-shoeing.** By W. MILES. Post  
8vo. Woodcuts, 2s. 6d.

**Remarks on Horses'**  
**Teeth,** addressed to Purchasers. By  
W. MILES. Post 8vo. 1s. 6d.

**The Ox, his Diseases and**  
their Treatment; with an Essay on  
Parturition in the Cow. By J. R.  
DOBSON, M.R.C.V.S. Crown 8vo.  
Illustrations, 7s. 6d.

## WORKS of UTILITY and GENERAL INFORMATION.

### **Maunder's Treasury of**

**Knowledge and Library of Reference**; comprising an English Dictionary and Grammar, Universal Gazetteer, Classical Dictionary, Chronology, Law Dictionary, Synopsis of the Peerage, Useful Tables, &c. Fcp. 8vo. 6s.

### **Maunder's Biographical**

**Treasury.** Latest Edition, reconstructed and partly re-written, with above 1,600 additional Memoirs, by W. L. R. CATES. Fcp. 8vo. 6s.

### **Maunder's Scientific and**

**Literary Treasury**; a Popular Encyclopædia of Science, Literature, and Art. Latest Edition, in part re-written, with above 1,000 new articles, by J. Y. JOHNSON. Fcp. 8vo. 6s.

### **Maunder's Treasury of**

**Geography**, Physical, Historical, Descriptive, and Political. Edited by W. HUGHES, F.R.G.S. With 7 Maps and 16 Plates. Fcp. 8vo. 6s.

### **Maunder's Historical**

**Treasury**; General Introductory Outlines of Universal History, and a Series of Separate Histories. Revised by the Rev. G. W. COX, M.A. Fcp. 8vo. 6s.

### **Maunder's Treasury of**

**Natural History**; or, Popular Dictionary of Zoology. Revised and corrected Edition. Fcp. 8vo. with 900 Woodcuts, 6s.

### **The Treasury of Bible**

**Knowledge**; being a Dictionary of the Books, Persons, Places, Events, and other Matters of which mention is made in Holy Scripture. By the Rev. J. AYRE, M.A. With Maps, Plates, and many Woodcuts. Fcp. 8vo. 6s.

### **A Practical Treatise on**

**Brewing**; with Formulæ for Public Brewers & Instructions for Private Families. By W. BLACK. 8vo. 10s. 6d.

### **Chess Openings.** By F.W.

LONGMAN, Balliol College, Oxford. Second Edition. Fcp. 8vo. 2s. 6d.

### **English Chess Problems.**

Edited by J. PIERCE, M.A. and W. T. PIERCE. With 608 Diagrams. Crown 8vo. 12s. 6d.

### **The Theory of the Modern Scientific Game of Whist.**

By W. POLE, F.R.S. Eighth Edition. Fcp. 8vo. 2s. 6d.

### **The Correct Card; or,**

How to Play at Whist; a Whist Catechism. By Captain A. CAMPBELL-WALKER, F.R.G.S. New Edition. Fcp. 8vo. 2s. 6d.

### **The Cabinet Lawyer; a**

Popular Digest of the Laws of England, Civil, Criminal, and Constitutional. Twenty-Fourth Edition, corrected and extended. Fcp. 8vo. 9s.

### **Pewtner's Comprehensive**

**Specifier**; a Guide to the Practical Specification of every kind of Building-Artificer's Work. Edited by W. YOUNG. Crown 8vo. 6s.

### **Hints to Mothers on the**

**Management of their Health** during the Period of Pregnancy and in the Lying-in Room. By THOMAS BULL, M.D. Fcp. 8vo, 2s. 6d.

### **The Maternal Manage-**

**ment of Children in Health and Disease.** By THOMAS BULL, M.D. Fcp. 8vo. 2s. 6d.

### **The Treasury of Botany,**

or Popular Dictionary of the Vegetable Kingdom; with which is incorporated a Glossary of Botanical Terms. Edited by J. LINDLEY, F.R.S. and T. MOORE, F.L.S. With 274 Woodcuts and 20 Steel Plates. Two Parts, fcp. 8vo. 12s.

**Modern Cookery for Pri-**

**ate Families**, reduced to a System of Easy Practice in a Series of carefully-tested Receipts. By ELIZA ACTON. With 8 Plates and 150 Woodcuts. Fcp. 8vo. 6s.

**The Elements of Bank-**

**ing.** By H. D. MACLEOD, M.A. Second Edition. Crown 8vo. 7s. 6d.

**The Theory and Practice**

**of Banking.** By H. D. MACLEOD, M.A. 2 vols. 8vo. 26s.

**Our New Judicial System**

**and Civil Procedure** as Reconstructed under the Judicature Acts, including the Act of 1876; with Comments on their Effect and Operation. By W. F. FINLASON, Barrister-at-Law. Crown 8vo. 10s. 6d.

**Willich's Popular Tables**

for ascertaining, according to the Carlisle Table of Mortality, the value of Lifehold, Leasehold, and Church Property, Renewal Fines, Reversions, &c. Also Interest, Legacy, Succession Duty, and various other useful tables. Eighth Edition. Post 8vo. 10s.

# INDEX.

<i>Acton's</i> Modern Cookery.....	24	<i>Buckle's</i> History of Civilisation.....	2
Alpine Club Map of Switzerland .....	20	—— Posthumous Remains .....	7
Alpige Guide (The) .....	20	<i>Buckton's</i> Health in the House .....	14
<i>Amos's</i> Jurisprudence .....	6	<i>Bull's</i> Hints to Mothers .....	23
——Primer of the Constitution.....	6	——Maternal Management of Children ..	23
<i>Anderson's</i> Strength of Materials .....	12	Burgomaster's Family (The) .....	21
<i>Armitage's</i> Childhood of the English Nation .....	4	<i>Burke's</i> Vicissitudes of Families.....	5
<i>Armstrong's</i> Organic Chemistry .....	12	Cabinet Lawyer.....	23
<i>Arnold's</i> (Dr.) Christian Life.....	17	<i>Campbell's</i> Norway .....	20
——Lectures on Modern History .....	2	<i>Capes's</i> Age of the Antonines.....	4
——Miscellaneous Works .....	7	——Early Roman Empire .....	4
——School Sermons .....	17	<i>Cates's</i> Biographical Dictionary.....	5
——Sermons .....	17	——and <i>Woodward's</i> Encyclopædia ...	3
——(T.) Manual of English Literature ..	7	<i>Cayley's</i> Iliad of Homer .....	21
——Beowulf .....	21	Changed Aspects of Unchanged Truths ...	8
<i>Arnott's</i> Elements of Physics.....	11	<i>Chesney's</i> Indian Polity .....	2
Atelier (The) du Lys .....	20	——Modern Military Biography.....	2
Atherstone Priory.....	21	——Waterloo Campaign .....	3
Autumn Holidays of a Country Parson ...	8	<i>Church's</i> Sketches of Ottoman History ...	1
<i>Ayre's</i> Treasury of Bible Knowledge .....	9, 23	<i>Colenso</i> on Moabite Stone &c. ....	19
<i>Bacon's</i> Essays, by <i>Whately</i> .....	6	——'s Pentateuch and Book of Joshua ..	19
——Life and Letters, by <i>Spedding</i> ...	6	Commonplace Philosopher in 'Town and Country.....	8
——Works .....	6	<i>Comte's</i> Positive Polity .....	5
<i>Bain's</i> Mental and Moral Science.....	7	<i>Congreve's</i> Politics of Aristotle .....	6
——on the Senses and Intellect .....	7	<i>Conington's</i> Translation of Virgil's <i>Æneid</i> ..	21
——Emotions and Will.....	7	——Miscellaneous Writings.....	8
<i>Baker's</i> Two Works on Ceylon .....	19	<i>Contanseau's</i> Two French Dictionaries ..	8
<i>Balf's</i> Guide to the Central Alps .....	20	<i>Conybeare and Horason's</i> Life and Epistles of St. Paul.....	17
——Guide to the Western Alps.....	20	Counsel and Comfort from a City Pulpit...	8
——Guide to the Eastern Alps .....	20	<i>Cox's</i> (G. W.) Aryan Mythology .....	3
<i>Bancroft's</i> Native Races of the Pacific.....	3	——Athenian Empire .....	4
<i>Barry</i> on Railway Appliances .....	12	——Crusades .....	4
<i>Beaconsfield's</i> (Lord) Novels and Tales ...	20	——General History of Greece .....	3
<i>Becker's</i> Charicles and Gallus.....	20	——Greeks and Persians.....	4
<i>Beesly's</i> Gracchi, Marius, and Sulla .....	4	——History of Greece .....	4
<i>Black's</i> Treatise on Brewing .....	23	——Tales of Ancient Greece ...	21
<i>Blackley's</i> German-English Dictionary.....	9	<i>Creighton's</i> Age of Elizabeth .....	4
<i>Blaine's</i> Rural Sports .....	22	<i>Cresy's</i> Encyclopædia of Civil Engineering ..	16
<i>Bloxam's</i> Metals .....	12	Critical Essays of a Country Parson.....	8
<i>Bolland and Lang's</i> Aristotle's Politics.....	6	<i>Crookes's</i> Anthracen .....	16
<i>Boulton</i> on 39 Articles.....	16	——Chemical Analyses .....	14
<i>Bourne's</i> Catechism of the Steam Engine .	16	——Dyeing and Calico-printing .....	16
——Handbook of Steam Engine.....	16	<i>Culley's</i> Handbook of Telegraphy.....	15
——Treatise on the Steam Engine ...	15	<i>Curteis's</i> Macedonian Empire .....	4
——Improvements in the same.....	15	<i>Davidson's</i> Introduction to the New Tes- tament.....	18
<i>Bowdler's</i> Family <i>Shakespeare</i> .....	21	<i>D'Aubigné's</i> Reformation .....	18
<i>Bramley-Moore's</i> Six Sisters of the Valleys .	21	<i>De Caisne and Le Maout's</i> Botany .....	14
<i>Brand's</i> Dictionary of Science, Literature, and Art .....	13		
<i>Brinkley's</i> Astronomy .....	10		
<i>Brown's</i> Exposition of the 39 Articles.....	16		



		PAGE	
<i>De Tocqueville's Democracy in America</i> .....	5	<i>Hale's Fall of the Stuarts</i> .....	4
<i>Dobson on the Ox</i> .....	22	<i>Hartley on the Air</i> .....	10
<i>Dove's Law of Storms</i> .....	10	<i>Hartwig's Aerial World</i> .....	12
<i>Dowell's History of Taxes</i> .....	6	Polar World.....	12
<i>Doyle's (R.) Fairyland</i> .....	14	Sea and its Living Wonders ..	12
		Subterranean World.....	13
		Tropical World.....	12
<i>Eastlake's Hints on Household Taste</i> .....	15	<i>Haughton's Animal Mechanics</i> .....	11
<i>Edwards's Rambles among the Dolomites</i>	20	<i>Hayward's Biographical and Critical Essays</i>	5
Nile.....	19	<i>Heer's Primeval World of Switzerland</i> .....	13
Year in Western France.....	19	<i>Heine's Life and Works, by Stigand</i> .....	4
<i>Elements of Botany</i> .....	13	<i>Helmholtz on Tone</i> .....	11
<i>Ellicott's Commentary on Ephesians</i> .....	17	<i>Helmholtz's Scientific Lectures</i> .....	11
Galatians.....	17	<i>Hemsley's Trees and Shrubs</i> .....	14
Pastoral Epist.....	17	<i>Herschel's Outlines of Astronomy</i> .....	10
Philippians, &c.....	17	<i>Hinchliff's Over the Sea and Far Away</i> ...	19
Thessalonians.....	17	<i>Hobson's Amateur Mechanic</i> .....	15
Lectures on Life of Christ.....	17	<i>Hoskold's Engineer's Valuing Assistant</i> .....	15
<i>Elsa, a Tale of the Tyrolean Alps</i> .....	21	<i>Howorth's Mongols</i> .....	3
<i>Epochs of Ancient History</i> .....	4	<i>Hullah's History of Modern Music</i> .....	13
Modern History.....	4	Transition Period.....	13
<i>Evans' (J.) Ancient Stone Implements</i> ...	13	<i>Hume's Essays</i> .....	7
(A. J.) Bosnia.....	19	Treatise on Human Nature.....	7
<i>Ewald's History of Israel</i> .....	18		
Antiquities of Israel.....	18		
		<i>Ihné's Rome to its Capture</i> .....	4
<i>Fairbairn's Application of Cast and</i>		History of Rome.....	3
Wrought Iron to Building... ..	16	<i>Indian Alps</i> .....	19
Information for Engineers.....	16	<i>Ingelow's Poems</i> .....	21
Life.....	4		
Treatise on Mills and Millwork	16		
<i>Farrar's Chapters on Language</i> .....	8	<i>Jameson's Legends of the Saints &amp; Martyrs</i>	15
Families of Speech.....	8	Legends of the Madonna.....	15
<i>Finlason's Judicial System</i> .....	24	Legends of the Monastic Orders	15
<i>Fitzwygram on Horses and Stables</i> .....	22	Legends of the Saviour.....	15
<i>Forbes's Two Years in Fiji</i> .....	19	<i>Jenkin's Electricity and Magnetism</i> .....	12
<i>Frampton's (Bishop) Life</i> .....	5	<i>Jerram's Lycidas of Milton</i> .....	21
<i>Francis's Fishing Book</i> .....	22	<i>Jerrold's Life of Napoleon</i> .....	2
<i>Freshfield's Italian Alps</i> .....	19	<i>Johnston's Geographical Dictionary</i> .....	9
<i>Froude's English in Ireland</i> .....	2	<i>Jukes's Types of Genesis</i> .....	18
History of England.....	2	on Second Death.....	18
Short Studies.....	7		
		<i>Kalisch's Commentary on the Bible</i> .....	17
<i>Gairdner's Houses of Lancaster and York</i>	4	<i>Keith's Evidence of Prophecy</i> .....	17
<i>Ganol's Elementary Physics</i> .....	11	<i>Kerf's Metallurgy, by Crookes and Röhrig</i> .	16
Natural Philosophy.....	11	<i>Kirby and Spence's Entomology</i> .....	12
<i>Gardiner's Buckingham and Charles</i> .....	2	<i>Kirkman's Philosophy</i> .....	7
Personal Government of Charles I.	2	<i>Knatchbull-Hugessen's Whispers from</i>	
First Two Stuarts.....	4	Fairy-Land ...	20
Thirty Years' War.....	4	Higgledy-Piggledy.....	20
<i>Geffcken's Church and State</i> .....	6	<i>Kuenen's Prophets and Prophecy in Israel</i>	17
<i>German Home Life</i> .....	7		
<i>Gilbert &amp; Churchill's Dolomites</i> .....	20		
<i>Girdlestone's Bible Synonyms</i> .....	17		
<i>Goldziher's Hebrew Mythology</i> .....	17		
<i>Goodeve's Mechanics</i> .....	12	<i>Landscapes, Churches, &amp;c.</i> .....	8
Mechanism.....	12	<i>Latham's English Dictionaries</i> .....	8
<i>Grant's Ethics of Aristotle</i> .....	6	Handbook of English Language	8
<i>Graver Thoughts of a Country Parson</i> .....	8	<i>Lawrence on Rocks</i> .....	13
<i>Greville's Journal</i> .....	2	<i>Lecky's History of European Morals</i> .....	3
<i>Griffin's Algebra and Trigonometry</i> .....	12	Rationalism.....	3
<i>Griffith's Behind the Veil</i> .....	18	Leaders of Public Opinion.....	5
<i>Grohman's Tyrol and the Tyrolese</i> .....	19	<i>Lefroy's Bermudas</i> .....	19
<i>Grove (Sir W. R.) on Correlation of Physical Forces</i> .....	11	<i>Leisure Hours in Town</i> .....	6
(F. C.) The Frosty Caucasus.....	19	<i>Lessons of Middle Age</i> .....	8
<i>Gwill's Encyclopædia of Architecture</i> .....	15	<i>Lewis's Biographical History of Philosophy</i>	4
		<i>Lewis on Authority</i> .....	7

	PAGE		PAGE
<i>Cott's</i> Greek-English Lexicons .....	9	<i>Mill</i> (J. S.) Representative Government ...	5
<i>Lindley and Moore's</i> Treasury of Botany...13, 22		System of Logic .....	6
<i>Lloyd's</i> Magnetism .....	11	Unsettled Questions .....	5
Wave-Theory of Light .....	11	Utilitarianism .....	5
<i>Longman's</i> (F. W.) Chess Openings.....	23	Autobiography.....	5
German Dictionary ...	9	<i>Miller's</i> Elements of Chemistry .....	14
(W.) Edward the Third.....	2	Inorganic Chemistry.....	12
Lectures on History of		<i>Mitchell's</i> Manual of Assaying .....	16
England .....	2	Modern Novelist's Library .....	21
Old and New St. Paul's	15	<i>Monseil's</i> Spiritual Songs.....	18
<i>Loudon's</i> Encyclopædia of Agriculture ...	16	<i>Moore's</i> Irish Melodies, Illustrated Edition	15
Gardening .....	16	Lalla Rookh, Illustrated Edition..	15
Plants.....	13	<i>Morell's</i> Mental Philosophy .....	7
<i>Lubbock's</i> Origin of Civilisation .....	13	<i>Mozart's</i> Life and Letters .....	4
<i>Ludlow's</i> American War.....	4	<i>Müller's</i> Chips from a German Workshop.	8
<i>Lyra Germanica</i> .....	18	Science of Language .....	8
		Science of Religion .....	3
<i>Macaulay's</i> (Lord) Essays .....	1		
History of England ...	1	<i>Neison</i> on the Moon.....	10
Lays of Ancient Rome 14, 21		New Testament, Illustrated Edition.....	15
Life and Letters.....	4	<i>Nicols's</i> Puzzle of Life .....	13
Miscellaneous Writings	7	<i>Northcott's</i> Lathes & Turning .....	15
Speeches .....	7		
Works .....	1	<i>O'Connor's</i> Commentary on Hebrews .....	18
Writings, Selections from	7	Romans .....	18
<i>MacColl's</i> Eastern Question .....	1	St. John .....	18
<i>McCulloch's</i> Dictionary of Commerce .....	9	<i>Osborn's</i> Islam .....	3
<i>Macleod's</i> Economical Philosophy .....	6	<i>Owen's</i> Comparative Anatomy and Physio-	
Theory and Practice of Banking	24	logy of Vertebrate Animals .....	12
Elements of Banking.....	24		
<i>Mademoiselle Mori</i> .....	21	<i>Pack's</i> Guide to the Pyrenees .....	20
<i>Male's</i> Annals of the Road .....	22	<i>Pattison's</i> Casaubon.....	5
<i>Marshall's</i> Physiology .....	14	<i>Payen's</i> Industrial Chemistry.....	15
<i>Marshman's</i> Life of Havelock .....	5	<i>Pewtner's</i> Comprehensive Specifier .....	23
<i>Martineau's</i> Christian Life.....	19	<i>Pierce's</i> Chess Problems .....	23
Hours of Thought.....	19	<i>Polé's</i> Game of Whist .....	23
Hymns.....	18	<i>Preece &amp; Sivecwright's</i> Telegraphy.....	12
<i>Maunder's</i> Biographical Treasury .....	5, 23	Present-Day Thoughts.....	8
Geographical Treasury .....	23	<i>Proctor's</i> Astronomical Essays .....	10
Historical Treasury .....	23	Moon .....	10
Scientific and Literary Treasury	23	Orbs around Us .....	10
Treasury of Knowledge .....	9, 23	Other Worlds than Ours .....	10
Treasury of Natural History..13, 23		Saturn .....	10
<i>Maxwell's</i> Theory of Heat .....	12	Scientific Essays (Two Series) ...	12
<i>May's</i> History of Democracy .....	2	Sun .....	10
History of England .....	2	Transits of Venus .....	10
<i>Melville's</i> Digby Grand .....	21	Two Star Atlases.....	10
General Bounce .....	21	Universe .....	10
Gladiators .....	21	<i>Prothero's</i> De Montfort .....	2
Good for Nothing .....	21	Public Schools Atlas of Ancient Geography	9
Holmby House .....	21	Atlas of Modern Geography	9
Interpreter .....	21		
Kate Coventry .....	21	<i>Rawlinson's</i> Parthia.....	3
Queen's Marics .....	21	Sassanians .....	3
<i>Mendelssohn's</i> Letters .....	4	Recreations of a Country Parson .....	
<i>Merivale's</i> Fall of the Roman Republic ...	3	<i>Redgrave's</i> Dictionary of Artists .....	14
General History of Rome .....	3	<i>Reuvé's</i> Residence in Vienna and Berlin	
Roman Triumphvirates.....	4	<i>Reilly's</i> Map of Mont Blanc .....	20
Romans under the Empire .....	3	Monte Rosa.....	20
<i>Merrifield's</i> Arithmetic and Mensuration..	12	<i>Rerashy's</i> Memoirs .....	5
<i>Miles</i> on Horse's Foot and Horse Shoeing	22	<i>Reynardson's</i> Down the Road .....	22
on Horse's Teeth and Stables.....	22		
on the Mind .....	6		
Dissertations & Discussions.....	6		
Essays on Religion .....	17		
Hamilton's Philosophy .....	6		
(J. S.) Liberty .....	5		
Political Economy .....	5		

		PAGE
<i>Rich's</i> Dictionary of Antiquities .....	9	
<i>Rivers's</i> Rose Amateur's Guide.....	13	
<i>Rogers's</i> Eclipse of Faith.....	17	
— Defence of Eclipse of Faith .....	17	
— Essays.....	5	
<i>Rogel's</i> Thesaurus of English Words and Phrases .....	8	
<i>Ronald's</i> Fly-Fisher's Entomology .....	22	
<i>Roscoe's</i> Outlines of Civil Procedure.....	6	
<i>Rothschild's</i> Israelites .....	18	
<i>Sanders's</i> Justinian's Institutes .....	6	
<i>Sankey's</i> Sparta and Thebes .....	4	
<i>Savile</i> on Apparitions.....	8	
— on Primitive Faith .....	17	
<i>Schellen's</i> Spectrum Analysis.....	10	
<i>Scott's</i> Lectures on the Fine Arts .....	14	
— Poems .....	14	
Seaside Musing.....	8	
<i>Seeborn's</i> Oxford Reformers of 1498.....	3	
— Protestant Revolution .....	4	
<i>Sewell's</i> History of France .....	2	
— Passing Thoughts on Religion ..	18	
— Preparation for Communion .....	18	
— Questions of the Day .....	18	
— Self-Examination for Confirmation	18	
— Stories and Tales .....	21	
— Thoughts for the Age .....	18	
<i>Shelley's</i> Workshop Appliances .....	12	
<i>Short's</i> Church History .....	3	
<i>Smith's</i> ( <i>Sydney</i> ) Essays .....	7	
— Wit and Wisdom .....	7	
— (Dr. R. A.) Air and Rain .....	10	
— (R. B.) Rome and Carthage.....	4	
<i>Southey's</i> Poetical Works.....	21	
<i>Stanley's</i> History of British Birds .....	13	
<i>Stephen's</i> Ecclesiastical Biography.....	5	
<i>Stonchenge</i> on the Dog .....	22	
— on the Greyhound .....	22	
<i>Stoney</i> on Strains .....	16	
<i>Stubbs's</i> Early Plantagenets .....	4	
Sunday Afternoons at the Parish Church of a University City .....	8	
Supernatural Religion .....	18	
<i>Swinbourne's</i> Picture Logic .....	6	
<i>Taylor's</i> History of India .....	2	
— Manual of Ancient History .....	4	
— Manual of Modern History .....	4	
— ( <i>Jeremy</i> ) Works, edited by <i>Eden</i> ..	18	
Text-Books of Science.....	12	
<i>Thomel's</i> Structural and Physiological Botany .....	12, 13	
<i>Thomson's</i> Laws of Thought ..	7	
<i>Thorpe's</i> Quantitative Analysis .....	12	
<i>Thorpe</i> and <i>Muir's</i> Qualitative Analysis ...	12	
<i>Tilden's</i> Chemical Philosophy .....	12, 14	
<i>Todd</i> on Parliamentary Government.....	2	
<i>Trench's</i> Realities of Irish Life .....	7	
<i>Trollope's</i> Barchester Towers.....	21	
— Warden .....	21	
<i>Twiss's</i> Law of Nations .....	6	
<i>Tyndall's</i> American Lectures on Light ...	11	
— Diamagnetism.....	11	
— Fragments of Science.....	11	
— Heat a Mode of Motion .....	11	
— Lectures on Electricity .....	11	
— Lectures on Light .....	11	
— Lectures on Sound.....	11	
— Molecular Physics.....	11	
Unawares .....	21	
<i>Unwin's</i> Machine Design .....	12	
<i>Ure's</i> Dictionary of Arts, Manufactures, and Mines .....	16	
<i>Vaughan's</i> Trident, Crescent, and Cross...	18	
<i>Walker</i> on Whist .....	23	
<i>Warburton's</i> Edward the Third .....	4	
<i>Walson's</i> Geometry .....	12	
<i>Watt's</i> Dictionary of Chemistry .....	14	
<i>Webb's</i> Objects for Common Telescopes ..	10	
<i>Weinhold's</i> Experimental Physics.....	11	
<i>Wellington's</i> Life, by <i>Gleig</i> .....	5	
<i>Whately's</i> English Synonymes .....	8	
— Logic .....	6	
— Rhetoric .....	6	
<i>White and Riddle's</i> Latin Dictionaries ..	9	
<i>Whitworth's</i> Measuring Machine .....	15	
<i>Wilcock's</i> Sea-Fisherman .....	22	
<i>Williams's</i> Aristotle's Ethics.....	6	
<i>Willich's</i> Popular Tables .....	24	
<i>Wood's</i> (J. G.) Bible Animals .....	12	
— Homes without Hands .....	12	
— Insects at Home .....	12	
— Insects Abroad.....		
— Out of Doors .....		
— Strange Dwellings .....	12	
— (J. T.) Ephesus .....	19	
<i>Woodward's</i> Geology .....	13	
<i>Wyatt's</i> History of Prussia .....	2	
<i>Yonge's</i> English-Greek Lexicons .....	9	
— Horace .....	21	
<i>Youatt</i> on the Dog ...	22	
— on the Horse .....	22	
<i>Zeller's</i> Plato.....	3	
— Socrates .....	3	
— Stoics, Epicureans, and Sceptics...	3	
<i>Zimmer's</i> Life of Schopenhauer .....	4	

# MODERN HISTORICAL EPOCHS.

*In course of publication, each volume in fcp. 8vo. complete in itself,*

## EPOCHS OF MODERN HISTORY:

A SERIES OF BOOKS NARRATING THE

### HISTORY of ENGLAND and EUROPE

At SUCCESSIVE EPOCHS SUBSEQUENT to the CHRISTIAN ERA.

EDITED BY

E. E. MORRIS, M.A. Lincoln Coll. Oxford;

J. S. PHILLPOTTS, B.C.L. New Coll. Oxford; and

C. COLBECK, M.A. Fellow of Trin. Coll. Oxford.

'This striking collection of little volumes is a valuable contribution to the literature of the day, whether for youthful or more mature readers. As an abridgment of several important phases of modern history it has great merit, and some of its parts display powers and qualities of a high order. Such writers, indeed, as Professor STUBBS, Messrs. WARBURTON, GAIRDNER, CREIGHTON, and others, could not fail

to give us excellent work. . . . The style of the series is, as a general rule, correct and pure; in the case of Mr. STUBBS it more than once rises into genuine, simple, and manly eloquence; and the composition of some of the volumes displays no ordinary historical skill. . . . The Series is and deserves to be popular.'

THE TIMES, Jan. 2, 1877.

#### Eleven Volumes Now Published:—

The ERA of the PROTESTANT REVOLUTION. By F. SEEBOHM, Author of 'The Oxford Reformers—Collet, Erasmus, More.' With 4 Coloured Maps and 12 Diagrams on Wood. Price 2s. 6d.

'Mr. SEEBOHM'S Era of the Protestant Revolution shows an admirable mastery of a complex subject; it abounds in sound

and philosophic thought, and as a composition it is very well ordered. . . . This volume, in short, is of the greatest merit.'

THE TIMES, Jan. 2.

The CRUSADES. By the Rev. G. W. Cox, M.A. late Scholar of Trinity College, Oxford; Author of the 'Aryan Mythology' &c. With a Coloured Map. Price 2s. 6d.

'The earliest period, in point of time, is that of the Crusades, of which we have a summary from the accomplished pen of the well-known Author of one of the best

and latest histories of Greece. Mr. Cox's narrative is flowing and easy, and parts of his work are extremely good.'

THE TIMES, Jan. 2.

The THIRTY YEARS' WAR, 1618–1648. By SAMUEL RAWSON GAIRDNER, late Student of Ch. Ch.; Author of 'History of England from the Accession of James I. to the Disgrace of Chief Justice Coke' &c. With a Coloured Map. Price 2s. 6d.

'The narrative—a singularly perplexing task—is on the whole remarkably clear, and the Author gives us a well-written summary of the causes that led to the great contest, and of the most striking

incidents that marked its progress. Mr. GAIRDNER'S judgments, too, are usually just. . . . The Author, we should add, is very skilful in his delineation of historical characters.'

THE TIMES, Jan. 2.

The HOUSES of LANCASTER and YORK; with the CONQUEST and LOSS of FRANCE. By JAMES GAIRDNER, of the Public Record Office; Editor of 'The Paston Letters' &c. With 5 Coloured Maps. Price 2s. 6d.

'Mr. GAIRDNER'S Epoch, 'Lancaster and York, is usually correct and sensible, and

the conclusions of the Author are just and accurate.'

THE TIMES, Jan. 2.

London, LONGMANS & CO.

[Continued.]

# EPOCHS OF MODERN HISTORY—*continued.*

**EDWARD THE THIRD.** By the Rev. W. WARBURTON, M.A. late Fellow of All Souls College, Oxford; Her Majesty's Senior Inspector of Schools. With 3 Coloured Maps and 3 Genealogical Tables. Price 2s. 6d.

'This Epoch is a very good one, and is well worth a studious reader's attention. Mr. WARBURTON has reproduced extremely well the spirit and genius of that chivalric age.' THE TIMES, Jan. 2.

**The AGE of ELIZABETH.** By the Rev. M. CREIGHTON, M.A. late Fellow and Tutor of Merton College, Oxford. With 5 Maps and 4 Genealogical Tables. 2s. 6d.

'Mr. CREIGHTON has thoroughly mastered the intricate mysteries of the foreign politics of the whole period; and he has described extremely ably the relations between this country and the other States of Europe, and the character of the policy of the Queen and her counsellors.' THE TIMES, Jan. 2.

**The FALL of the STUARTS; and WESTERN EUROPE from 1678 to 1697.** By the Rev. EDWARD HALE, M.A. Assistant-Master at Eton. With Eleven Maps and Plans. Price 2s. 6d.

'Mr. HALE has thoroughly grasped the great facts of the time, and has placed them in a very effective light.' THE TIMES, Jan. 2.

**The FIRST TWO STUARTS and the PURITAN REVOLUTION, 1603-1660.** By SAMUEL RAWSON GARDINER, Author of 'The Thirty Years' War, 1618-1648.' With 4 Coloured Maps. Price 2s. 6d.

'Mr. GARDINER's "First Two Stuarts and the Puritan Revolution" deserves more notice than we can bestow upon it. This is in some respects a very striking work. Mr. GARDINER's sketch of the time of James I. brings out much that had hitherto been little known.' THE TIMES, Jan. 2.

**The WAR of AMERICAN INDEPENDENCE, 1775-1783.** By JOHN MALCOLM LUDLOW, Barrister-at-Law. With 4 Coloured Maps. Price 2s. 6d.

'Mr. LUDLOW's account of the obscure annals of what afterwards became the Thirteen Colonies is learned, judicious, and full of interest, and his description of the Red Indian communities is admirable for its good feeling and insight. . . . The volume is characterised by impartiality and good sense.' THE TIMES, Jan. 2.

**The EARLY PLANTAGENETS.** By the Rev. W. STUBBS, M.A. Regius Professor of Modern History in the University of Oxford. With 2 coloured Maps. Price 2s. 6d.

'As a whole, his book is one of rare excellence. As a comprehensive sketch of the period it is worthy of very high commendation. . . . As an analyst of institutions and laws Mr. STUBBS is certainly not inferior to HALLAM. His narrative, moreover, is, as a rule, excellent, clear, well put together, and often picturesque; his language is always forcible and sometimes eloquent; his power of condensation is very remarkable, and his chapter on the contemporaneous state of Europe is admirable for its breadth and conciseness.' THE TIMES, Jan. 2.

**The AGE of ANNE.** By E. E. MORRIS, M.A. of Lincoln College, Oxford; Head Master of the Melbourne Grammar School, Australia; Original Editor of the Series. With 7 Maps and Plans. Price 2s. 6d.

## *Volumes in preparation, in continuation of the Series:—*

**The NORMANS in EUROPE.** By Rev. A. H. JOHNSON, M.A., Fellow of All Souls College, Oxford. [Nearly ready.]

**The BEGINNING of the MIDDLE AGES; Charles the Great and Alfred; the History of England in connexion with that of Europe in the Ninth Century.** By the Very Rev. R. W. CHURCH, M.A. Dean of St. Paul's. [In the press.]

**The EARLY HANOVERIANS.** By the Rev. T. J. LAWRENCE, B.A. Warden of Cavendish College, late Fellow and Tutor of Downing College, Cambridge.

**The FRENCH REVOLUTION to the BATTLE of WATERLOO, 1789-1815.** By BERTHA M. CORDERY, Author of 'The Struggle Against Absolute Monarchy.'

**FREDERICK the GREAT and the SEVEN YEARS' WAR.** By F. W. LONGMAN, of Balliol College, Oxford.

London, LONGMANS & CO.





